PUBLIC NOTICE

US Army Corps
of Engineers ®
New England District

696 Virginia Road
Concord, MA 01742-2751

Date: March 24, 2009
Comment Period Ends: April 24, 2009
File Number: NAE-2008-852
In Reply Refer To: William J. Mullen
Or by e-mail: William.J.Mullen@usace.army.mil

The District Engineer has received a permit application from the applicant below to **conduct work in waters of the United States** as described below.

APPLICANT Town of Darien

ACTIVITY To construct a flood control project that prevents flooding at businesses along Heights Road in Darien, Connecticut up to the 100-year flood recurrence interval. Primary features include the construction of an additional culvert under the Metro-North railroad tracks, culverting of a 450-foot reach of a watercourse, and creation of a floodwater detention basin in Baker Park.
A detailed description and plans of the activity are attached.

WATERWAY AND LOCATION OF THE PROPOSED WORK
This work is proposed in an unnamed tributary of Stony Brook in the reach from Heights Road to Baker Park in Darien, Connecticut. The proposed location on the USGS Norwalk South quadrangle sheet is at Lat 41 3.92' N Long 73 29.45' W.

AUTHORITY
Permits are required pursuant to:
_____Section 10 of the Rivers and Harbors Act of 1899
__X__ Section 404 of the Clean Water Act
_____Section 103 of the Marine Protection, Research and Sanctuaries Act).

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other

public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

a. The permit area has been extensively modified by previous work.
b. The permit area has been recently created.
c. The proposed activity is of limited nature and scope.
d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.
e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s)

The following authorizations have been applied for, or have been, or will be obtained:

( ) Permit, License or Assent from State.
(X) Permit from Local Wetland Agency or Conservation Commission.
(X) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. **Comments should be submitted in writing by the above date.** If you have any questions, please contact Bill Mullen at (978) 318-8559, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

For more information on the New England District Corps of Engineers programs, visit our website at http://www.nae.usace.army.mil.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.

Robert J. DeSista
Chief, Permits and Enforcement Branch
Regulatory Division

If you would prefer not to continue receiving Public Notices, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here ( ) and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____
ADDRESS: _____

PROPOSED WORK AND PURPOSE

The work includes the discharge of fill material for the purpose of preventing flooding at businesses along Heights Road in Darien, Connecticut up to the 100-year flood recurrence interval. A total of 0.25 acres of wetlands/waters is proposed to be filled as part of the project at two locations in Darien including within Baker Park and in the vicinity of Maple Street and Relihan Road. Components of the flood control project include:

1. A new 60"-diameter reinforced concrete culvert to be constructed parallel to an existing 3' x 4' box culvert beneath Heights Road and the Metro-North railroad tracks. Both culverts will convey flow of the unnamed tributary to Stony Brook in that reach. The entrance of the new culvert will be located on the south side of Heights Road, where the drainage area is 140.5 acres. The new culvert will discharge to the existing 72" x 44" arched asphalt-coated corrugated metal pipe (ACCMP) that takes flows under Interstate I-95. No fill will be placed within jurisdictional waters or wetlands in conjunction with its construction.
2. Culverting of a 450' reach of the unnamed tributary to Stony Brook that passes through the yards of properties along Maple Street and Relihan Road. (Currently about a third of this reach is culverted). The 450' reach will consist of a 5'-high by 12'-wide box culvert (upstream) transitioning to two 4'-high by 7'-wide box culverts (downstream). This reach receives flow from the 72" x 44" arched ACCMP that conveys the flow of the unnamed tributary to Stony Brook under Interstate I-95. Fill will be placed within 0.07 acres of jurisdictional waters or wetlands in conjunction with its construction.
3. A concrete diversion structure to be constructed near the northwest corner of Baker Park (downstream of where the unnamed tributary to Stony Brook enters the park), where the drainage area is 176.8 acres. This diversion structure will carry the majority of the flow to the proposed detention basin (see item 4 below) via a 28'-long spillway, but will also allow a limited amount of flow to continue to the watercourse located along the western boundary of the park via a 6'-wide x 3'-high box culvert. Fill associated with this item is included in item 4 below.
4. A detention basin to be constructed in Baker Park to accommodate the increased flood flows that will be discharged from the Heights Road area as a result of the increased hydraulic capacity upstream (items 1 and 2 above). The detention basin will be excavated within the western and southern forested upland areas within the park, and will have a sinuous shape in order to minimize impacts to the wetlands at Baker Park (note that the unnamed tributary to Stony Brook historically flowed through these wetlands, but the watercourse was relocated long ago parallel to the park's western boundary). The 1.66 acre basin will be planted with a wetland seed mix. A concrete outlet structure will be constructed along with an earthen berm at the south end of the detention basin. Discharge rates downstream of the detention basin will remain at or below existing discharge rates and therefore existing flood potential in downstream reaches will remain substantially unchanged. Fill placed within jurisdictional areas within Baker Park for the detention basin, the concrete diversion structure, and riprap placed at the outlet of the Maple/Relihan culvert is 0.18 acres.

The work is described on the enclosed plans entitled "Stony Brook Tributary Flood Control Project" on 42 sheets, and dated "February 10, 2009."

Several project alternatives to storage of floodwaters in excavated uplands at Baker Park were considered. One alternative involved underground storage of excess floodwater storage in underground storage pipes constructed beneath the Metro-North railroad station parking area. One option included pumping of stormwater from

Heights Road into the storage facility, another option didn't include pumping. This alternative and options could provide only 25-30 percent of the storage volume required, and had several other disadvantages. Storage was also considered under the Stop and Shop parking area located near Heights Road, but it was found to have similar shortcomings. Other alternatives considered included the construction of a flood protection barrier around the Heights Road businesses, and the dry floodproofing of buildings, but both were found to be impractical for a number of reasons. Another alternative involving the raising of the buildings along Heights Road above the elevation of anticipated floodwaters, but this would involve difficulties including the closure of the businesses for several months. Another alternative involves the purchase and demolition of the affected buildings along Heights Road. Although market value of the properties is approximately $10 million, this may be a feasible alternative. Other alternatives studied involved various methods of proving floodwater storage at Baker Park. These included elimination of the existing ballfields at Baker Park and their replacement with an open detention basin, construction of a "closed" detention system under the existing ballfields, and floodwater storage within the wetlands at Baker Park. Alternatives for the conveyance of excess flows between Interstate I-95 and Baker Park were also investigated, but they are not discussed here.

Impacts to jurisdictional wetlands and waters cannot be avoided if a project to reduce flooding at businesses at Heights Road is to be implemented. The project has been designed to minimize impacts to wetlands. A net total of 0.68 acres of mitigation (enhanced/created) are being proposed in two offsite areas (one along the western portion of the Darien High School campus and one adjacent to Darien Town Hall) to offset the proposed impacts, with both areas within the Stony Brook watershed in close proximity to the impacted areas.

At the Darien High School site, mitigation will include wetland creation and watercourse enhancements within a tributary to Stony Brook (not the same unnamed tributary to Stony Brook that flows by Heights Avenue). The low-gradient, low functioning watercourse will be eliminated and a floodplain wetland area will be created by excavating the forest edge east of the watercourse. The area is designed for a meandering channel to form over time to encourage ecological production and diversity. Three wetland cells are proposed, each at a slightly lower elevation than the preceding one. Although 0.05 acres of watercourse would be eliminated, 0.42 acres of wetland would be created and 0.10 acres of wetland would be enhanced.

Wetland creation and watercourse enhancements are also proposed within Stony Brook proper, adjacent to the Darien Town Hall. The eastern stone-lined bank will be removed to create a vegetated bank that will enhance the diversity of wildlife opportunities. Small riverine wetland areas will be created in two locations along the stream reach to foster development of a floodplain wetland. Three rock vanes will also be constructed to enhance fish habitat. This mitigation involves 0.09 acres of streambank enhancement, 0.10 acres of wetland enhancement, and 0.02 acres of wetlands created.

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DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

217 WEBB ROAD
FAIRFIELD, CT 06825
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DRAWING NAME:
LIST OF DRAWINGS

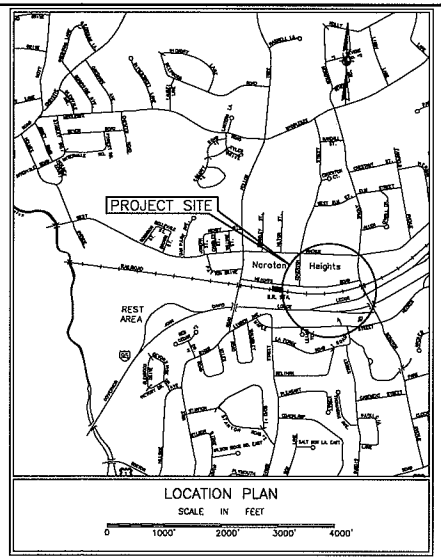
DRAWING NUMBER:
1 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

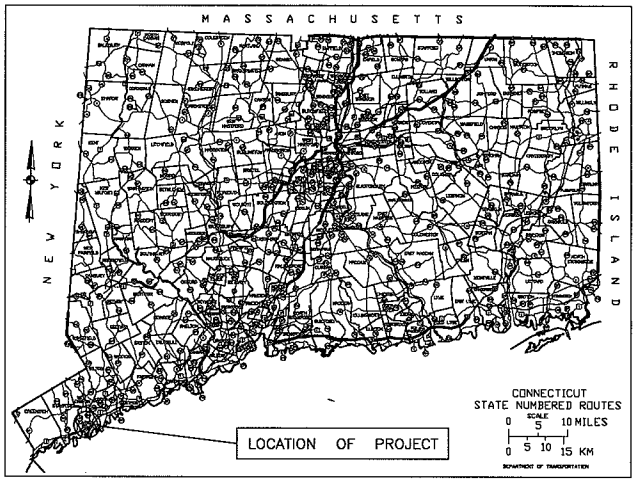
ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**



TOWN OF DARIEN

HEIGHTS ROAD
RAILROAD CULVERT IMPROVEMENTS



ALL ELEVATIONS OF THIS PROJECT BASED ON NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.) OF 1929. ALL COORDINATE VALUES ARE BASED ON AN ASSUMED COORDINATE SYSTEM.

TOWN NO. 35

STANDARD CONVENTIONS

North Arrow W/No. Coor. | Grid Arrow

Edge Of Road	Limit Of Marsh
Concrete Pavement	Stone Wall
Dirt Road	Ledge Outcrop
B.C.L.C.	Inland Wetland Limits
Granite Curb	STATE LINE
Guide Rail	Power Line
Concrete Median Barrier	Swamp
Ht. Wall	Building
Conc. Sidewalk	Transmission Tower
Railroad Tracks	Riprap
Chain Link Fence	Hedge Row
Rustic Fence	Tree Line
Pipe Fence	Shrub
Board Fence	Evergreen Tree
Water Edge	Deciduous Tree
Stream	Retaining Wall
Ditch	Highway Line
TOWN LINE	Street Line
	Property Line
	Lot Line
	Easement Line

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14	UTILITY INFORMATION

EVONNE M. KLEIN
FIRST SELECTWOMAN

ROBERT S. STEEGER, JR., PE
DIRECTOR OF PUBLIC WORKS

DARREN OUSTAFINE, PE
ASSISTANT DIRECTOR OF PUBLIC WORKS

REVIEW PRINT NOT FOR CONSTRUCTION

DESIGNED BY: **Dewberry–Goodkind, Inc.**

GEORGE L. JACOBS — DATE:

FIRST SELECTWOMAN – TOWN OF DARIEN

EVONNE M. KLEIN — DATE:

Dewberry
Dewberry-Goodkind, Inc.
ENGINEERS PLANNERS SURVEYORS
80 ELM STREET SUITE 101 NEW HAVEN, CT 06510
PHONE: 203.776.3277 FAX: 203.776.2286

TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

SEAL

KEY PLAN

DRAWN BY PAS
APPROVED BY
CHECKED BY MJW
DATE 04/04/2008

SCALE

TOWN OF DARIEN
FAIRFIELD COUNTY
CONNECTICUT
HEIGHTS ROAD
RAILROAD CULVERT
IMPROVEMENTS

No.	DATE	BY	Description

REVISIONS

TITLE
TITLE SHEET

PROJECT NO. 50010086

T-1

SHEET NO. 1 OF 14

2 of 14

GENERAL NOTES

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION; DESCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATYELY.

2. SURVEY AND TOPOGRAPHIC DATA ARE FROM 2004 AERIAL PHOTOGRAPHY AND TOPOGRAPHIC MAPPING.

3. THE ACTUAL LOCATION OF UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR. STATE LAW REQUIRES 48 HOUR NOTIFICATION OF "CALL BEFORE YOU DIG" AT 1-800-922-4455 BEFORE EXCAVATING.

4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PLACED AS SHOWN ON PLANS PRIOR TO THE START OF THE CONSTRUCTION.

5. SPECIFICATION SHALL COMPLY WITH CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 (2004), SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 2006 AND SPECIAL PROVISIONS.

6. DESIGN SPECIFICATION: STANDARD SPECIFICATION FOR HIGHWAY BRIDGES (AASHTO-1992), WITH INTERIM SPECIFICATIONS UP TO AND INCLUDING 1994, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL (2003).

7. ALL DRAINAGE STRUCTURES SHALL BE DESIGNED TO WITHSTAND AN HS 20-44 LIVE LOAD.

8. EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1"X 1" UNLESS DIMENSIONED OTHERWISE.

9. CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLAN WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

10. WHEN DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING CULVERT:

1. WHERE SHOWN ON THE PLANS, PORTIONS OF THE EXISTING STONE CULVERT SHALL BE REMOVED. PAYMENT FOR REMOVAL OF THE EXISTING STONE CULVERT WILL BE MADE UNDER ITEM 0974001 - REMOVAL OF EXISTING MASONRY. WHERE THE EXISTING CULVERT TIES INTO THE NEW PROPOSED BOX CULVERTS JOINTS SHALL BE MADE WATERTIGHT AND MEET THE SATISFACTION OF THE ENGINEER. THERE WILL BE NO SEPARATE PAYMENT FOR THE CONSTRUCTION OF THE WATERTIGHT CONNECTIONS TO THE NEW BOX CULVERTS, THE COST OF WHICH SHALL BE INCLUDED IN THE PRICE OF THE PROPOSED BOX CULVERTS.

2. AN ACTIVE SANITARY SEWER IS LOCATED INSIDE THE EXISTING STONE CULVERT AND IS REQUIRED TO BE MODIFIED FOR THE INSTALLATION OF THE PROPOSED BOX CULVERT AND BOX SECTIONS. SEE NOTE 1 UNDER "EXISTING SANITARY SEWER."

MAINTENANCE & PROTECTION OF TRAFFIC:

1. PEDESTRIAN ACCESS FROM ALL PORTIONS OF THE RAILROAD STATION PARKING LOTS TO THE RAILROAD STATION PLATFORM SHALL BE MAINTAINED. PEDESTRIAN WALKWAYS SHALL BE A MINIMUM OF 6 FEET WIDE AND DELINEATED BY TEMPORARY CHAIN LINK FENCE.

2. VEHICULAR ACCESS TO PARKING LOTS AND ROADWAYS SHALL BE MAINTAINED. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A MAINTENANCE AND PROTECTION OF TRAFFIC PLAN SHOWING THE ANTICIPATED IMPACT OF HIS OPERATIONS TO TRAFFIC; THE PLAN SHALL SHOW CLEARLY THE ROUTING FOR CONSTRUCTION EQUIPMENT AS WELL AS PEDESTRIAN AND PUBLIC VEHICULAR TRAFFIC.

3. NO ACTIVITY WHATSOEVER IS PERMITTED AT GRADE BETWEEN THE CHAIN LINK FENCE BORDERING THE NORTH AND SOUTH SIDES OF THE TRACK BEDS. THE CONTRACTOR'S OPERATIONS SHALL CONFORM TO ALL RAILROAD REQUIREMENTS.

EXISTING SANITARY SEWER:

1. AN ACTIVE SANITARY SEWER IS LOCATED INSIDE THE EXISTING STONE CULVERT. THE DUCTILE IRON PIPE ENTERS THE CULVERT ON THE SOUTH SIDE OF HEIGHTS ROAD AND EXITS THE STONE CULVERT JUST PRIOR TO THE CATCH BASIN ON THE I-95 SOUTHBOUND ENTRANCE RAMP. THE SANITARY SEWER IS LOCATED ALONG THE WEST WALL OF THE STONE CULVERT.

2. A SANITARY SEWER LATERAL CROSSES THE STORM DRAINAGE IN THE VICINITY OF THE I-95 SOUTHBOUND ENTRANCE RAMP. THE LOCATION SHOWN ON THE PLAN IS APPROXIMATE AND THE ELEVATION IS NOT KNOWN.

3. THE CONTRACTOR SHALL LOCATE AND PROTECT THE SANITARY SEWER AND ALL SEWER LATERALS DURING CONSTRUCTION.

4. THE CONTRACTOR IS ADVISED THAT WORK IS REQUIRED ON THE DIP SANITARY SEWER AND EXISTING FLOWS SHALL BE MAINTAINED. SANITARY SEWER FLOWS SHALL BE BYPASSED FROM THE UPSTREAM MANHOLE AT THE INTERSECTION OF HEIGHTS ROAD AND EDGERTON STREET TO THE DOWNSTREAM MANHOLE AT THE SOUTHBOUND ENTRANCE RAMP TO 195. THERE WILL BE NO SEPARATE PAYMENT FOR BYPASSING FLOWS THE COST OF WHICH SHALL BE INCLUDED IN THE COST OF THE SANITARY SEWER ITEMS (SEE ITEM#1401054A- HANDLING SEWAGE FLOWS).

5. THE PAY ITEM FOR THE INSTALLATION OF THE SANITARY SEWER (1401242A) INCLUDES ALL WORK AND MATERIALS ASSOCIATED WITH THE SEWER INSTALLATION, WITH THE EXCEPTION OF ITEM 0714038 - SOLDIER PILES AND LAGGING.

UTILITIES:

1. THE CONTRACTOR MUST BE VIGILANT TO THE OVERHEAD UTILITIES WHICH INCLUDE SEVERAL HIGH TENSION POWER TRANSMISSION LINES, RAILROAD CATENARY LINES AND POWER DISTRIBUTION CABLES ON UTILITY POLES.

2. BURIED PARKING LOT LIGHTING CONDUITS MUST BE LOCATED AND PROTECTED BY THE CONTRACTOR. THERE WILL BE NO SEPARATE PAYMENT FOR LOCATING AND PROTECTION OF THE BURIED CONDUITS. DAMAGE TO BURIED CONDUITS AND/OR POWER LINES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENCE.

3. PLANS PROVIDED BY NORTHEAST UTILITIES ARE INCLUDED FOR INFORMATION ONLY. THE CONTRACTOR MUST VERIFY ALL INFORMATION REGARDING THE HEIGHTS OF WIRES AND THE DEPTH OF ANY FOUNDATIONS.

METRO NORTH RAILROAD:

1. SPECIFICATIONS FOR PIPELINE OCCUPANCY OF METRO-NORTH COMMUTER RAILROAD COMPANY PROPERTY SHALL APPLY. THE SPECIFICATIONS APPLY TO THE DESIGN AND CONSTRUCTION OF PIPELINES CARRYING FLAMMABLE AND NON-FLAMMABLE SUBSTANCES AND CASINGS OVER 4-INCHES CONTAINING WIRES AND CABLES, UNDER, ACROSS AND ALONG RAILROAD PROPERTY AND FACILITIES AND TRACKS OWNED BY OTHERS OVER WHICH THE RAILROAD OPERATES ITS EQUIPMENT.

EXISTING GROUND AND INVERT INFORMATION

1. THE CONTRACTOR SHALL OBTAIN ELEVATIONS OF EXISTING GROUND AT ALL LOCATIONS WHERE PROPOSED AND EXISTING CATCH BASINS AND MANHOLES ARE TO BE INSTALLED AND/OR MODIFIED TO MATCH EXISTING GRADE. EXISTING GROUND ELEVATIONS SHALL ALSO BE OBTAINED BY THE CONTRACTOR ON EXISTING GROUND SURFACES PRIOR TO EXCAVATION IN ORDER FOR AREAS TO BE RESTORED TO THE ORIGINAL GHRADES AND MATCH EXISTING PAVEMENTS.

2. INVERT ELEVATIONS OF EXISTING SANITARY AND STORM SEWERS SHALL BE OBTAINED BY THE CONTRACTOR AFTER EXISTING PIPE IS EXPOSED WHERE NEW CONNECTIONS ARE TO BE MADE OR EXISTING CONNECTIONS ARE TO BE MODIFIED: THE CONTRACTOR SHALL UTILIZE THIS INFORMATION TO ESTABLISH THE SLOPE OF PROPOSED PIPE AND CULVERTS. SURVEY INFORMATION OBTAINED AND GRADES PROPOSED FOR PROPOSED CULVERTS AND PIPING SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.

3. THERE WILL BE NO SEPARATE PAYMENT FOR OBTAINING GROUND AND INVERT ELEVATIONS OR ESTABLISHING GRADES FOR THE PROPOSED PIPE INSTALLATIONS, THE COST OF WHICH SHALL BE INCLUDED IN ASSOCIATED ITEMS.

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TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

SEAL

KEY PLAN

DRAWN BY	PAS
APPROVED BY	
CHECKED BY	MJW
DATE	04/04/2006

SCALE

TOWN OF DARIEN
FAIRFIELD COUNTY
CONNECTICUT

HEIGHTS ROAD
RAILROAD CULVERT
IMPROVEMENTS

No.	DATE	BY	Description

REVISIONS

TITLE

GENERAL NOTES

PROJECT NO. 50010086

G-1

SHEET NO. 2 OF 14

GENERAL NOTES (CONT.)

TEST PITS (ITEM 0202452)

TEST PITS ARE ANTICIPATED ON HEIGHTS ROAD TO LOCATE THE EXISTING WATER MAIN, AND ADJACENT TO THE I-95 ON-RAMP TO LOCATE THE EXISTING SANITARY SEWER LATERAL.

SEDIMENTATION CONTROL SYSTEM (ITEM 0219001)

THE LOCATIONS WHERE SEDIMENTATION CONTROL SYSTEMS SHALL BE INSTALLED ARE GENERALLY ALONG THE SLOPE ADJACENT TO I-95 WHERE THE CONNECTIONS TO THE EXISTING DRAINAGE AND SANITARY SEWER SYSTEMS WILL BE MADE. SEDIMENTATION CONTROL SYSTEMS SHALL ALSO BE INSTALLED ALONG THE SLOPE ON THE SOUTH SIDE OF HEIGHTS ROAD ADJACENT TO THE SIDEWALK. THE EXACT LOCATIONS AND LIMITS WILL BE DETERMINED BY THE ENGINEER OR HIS/HER FIELD REPRESENTATIVE.

CONCRETE SIDEWALK (ITEM 0921001)

CONCRETE SIDEWALK, WHICH INCLUDES A MONOLITHICALLY POURED CONCRETE CURB, WILL BE INSTALLED ON HEIGHTS ROAD IN THE VICINITY OF THE "C" CATCH BASIN – DOUBLE GRATE, TYPE II AT THE ENTRANCE TO STOP & SHOP. THE NEW SIDEWALK WILL REPLACE THE EXISTING SIDEWALK DISTURBED BY THE INSTALLATION OF THE CATCH BASIN AND ASSOCIATED DRAINAGE. THE ENTIRE "FLAG" (SIDEWALK SECTION BETWEEN JOINTS) SHALL BE REPLACED.

CONCRETE SIDEWALK (WITH CURB) WILL ALSO BE INSTALLED ON THE SOUTH SIDE OF HEIGHTS ROAD WHERE REQUIRED DUE TO INSTALLATION OF THE PROPOSED STORM DRAINAGE AND MODIFICATIONS TO THE SANITARY SEWER SYSTEM.

THE LIMITS OF SIDEWALK REPLACEMENT WILL BE DETERMINED BY THE ENGINEER OR HIS/HER FIELD REPRESENTATIVE. THERE WILL BE NO PAYMENT FOR SIDEWALKS OUTSIDE OF THE LIMITS OF CONTRACT WORK THAT MUST BE REPLACE DUE TO DAMAGE BY THE CONTRACTOR.

EROSION CONTROL MATTING – TYPE D (ITEM 0950039)

EROSION CONTROL MATTING WILL BE INSTALLED ON THE SLOPE BETWEEN THE SOUTH RAILROAD PARKING LOT ANT THE I-95 ON-RAMP. THE LIMITS FOR THIS ITEM WILL GENERALLY FOLLOW THE "SOLDIER PILING AND LAGGING" LIMITS AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

HOT-APPLIED PAVEMENT MARKINGS (ITEMS 1209114 & 1209124)

THE ITEM HOT-APPLIED "WHITE" PAVEMENT MARKINGS SHALL BE USED TO DESIGNATE THE PARKING SPACES DISTURBED BY THE CONSTRUCTION IN THE RAILROAD PARKING LOTS. THE LIMITS SHALL GENERALLY CONFORM TO THE PERMANENT PAVEMENT LIMITS IN THE TWO RAILROAD PARKING AREAS.

HOT-APPLIED "YELLOW" PAVEMENT MARKINGS SHALL BE USED TO RE-STRIPE THE CENTERLINE ON HEIGHTS THROUGH THE LIMITS OF CONSTRUCTION.

TEMPORARY AND PERMANENT PAVEMENT REPAIRS (ITEMS 0406002 & 0406011)

1. TEMPORARY PAVEMENT REPAIRS ARE ANTICIPATED TO BE REQUIRED IN THE FOLLOWING LOCATIONS:
   - A. I-95 ON-RAMP FOR SANITARY SEWER TRENCH REPAIR (ITEMS 1405068 & 1405070)
   - B. NORTH RAILROAD PARKING LOT FROM TEMPORARY PRECAST BARRIER CURB TO THE NORTH LIMIT OF THE PARKING LOT.
   - C. HEIGHTS ROAD, FROM THE TEMPORARY PRECAST BARRIER CURB TO THE NORTH FOR PAVEMENT REPAIR AFTER PIPE INSTALLATION AND REMOVAL OF THE EXISTING STONE CULVERT.
   - D. STOP & SHOP DRIVEWAY AFTER INSTALLATION OF STORM DRAINAGE
2. PERMANENT PAVEMENT REPAIRS WILL BE PAID FOR UNDER THE ITEM 0304001 PROCESSED AGGREGATE BASE AND ITEM 0406011 BITUMINOUS CONCRETE CLASS I, WITH THE EXCEPTION OF THE SANITARY SEWER TRENCH REPAIR ON THE I-95 ON-RAMP. THE SEWER REPAIR ON THE RAMP WILL BE PAID UNDER ITEM 1405068. THE PAY LIMITS FOR PERMANENT PAVEMENT REPAIRS ARE ESTIMATED AS FOLLOWS:
   - A. SOUTH RAILROAD PARKING AREA – 3' AROUND THE JACKING PIT AND 10' FROM THE CENTERLINE OF THE PROPOSED DRAINAGE ON EACH SIDE OF THE PIPE EXCAVATION.
   - B. NORTH RAILROAD PARKING AREA – 3' AROUND THE RECEIVING PIT AND 10' FROM THE CENTERLINE OF THE PROPOSED DRAINAGE ON EACH SIDE OF THE PIPE EXCAVATION.
   - C. HEIGHTS ROAD – THE ENTIRE WIDTH OF HEIGHTS ROAD, 40' EAST OF THE BASELINE AND 30' WEST OF THE BASELINE (MEASURED ALONG THE CENTERLINE OF HEIGHTS ROAD.)
   - D. STOP & SHOP DRIVEWAY – PERPENDICULAR TO THE STREET LINE OF HEIGHTS ROAD THROUGH A POINT AT BASELINE STATION 9+50, APPROXIMATE 20' TO A POINT BEYOND THE PROPOSED CATCH BASIN, THEN PARALLEL TO THE STREET LINE OF HEIGHTS ROAD EASTERLY TO THE EXISTING CURB

-- PART 2 OF 2 --

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ENGINEERS
PLANNERS
SURVEYORS

TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

SEAL

KEY PLAN

DRAWN BY	PAS
APPROVED BY	
CHECKED BY	MJW
DATE	04/04/2006

SCALE

TOWN OF DARIEN
FAIRFIELD COUNTY
CONNECTICUT

HEIGHTS ROAD
RAILROAD CULVERT
IMPROVEMENTS

No.	DATE	BY	Description

REVISIONS

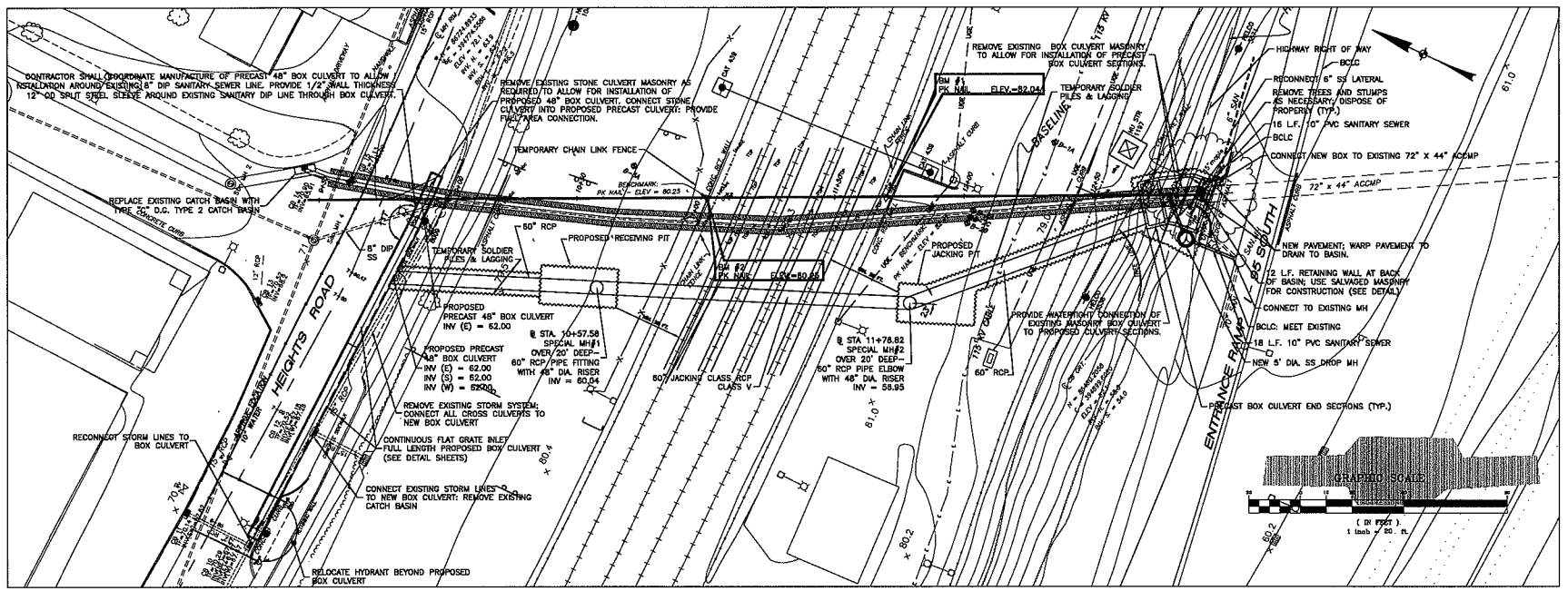
TITLE

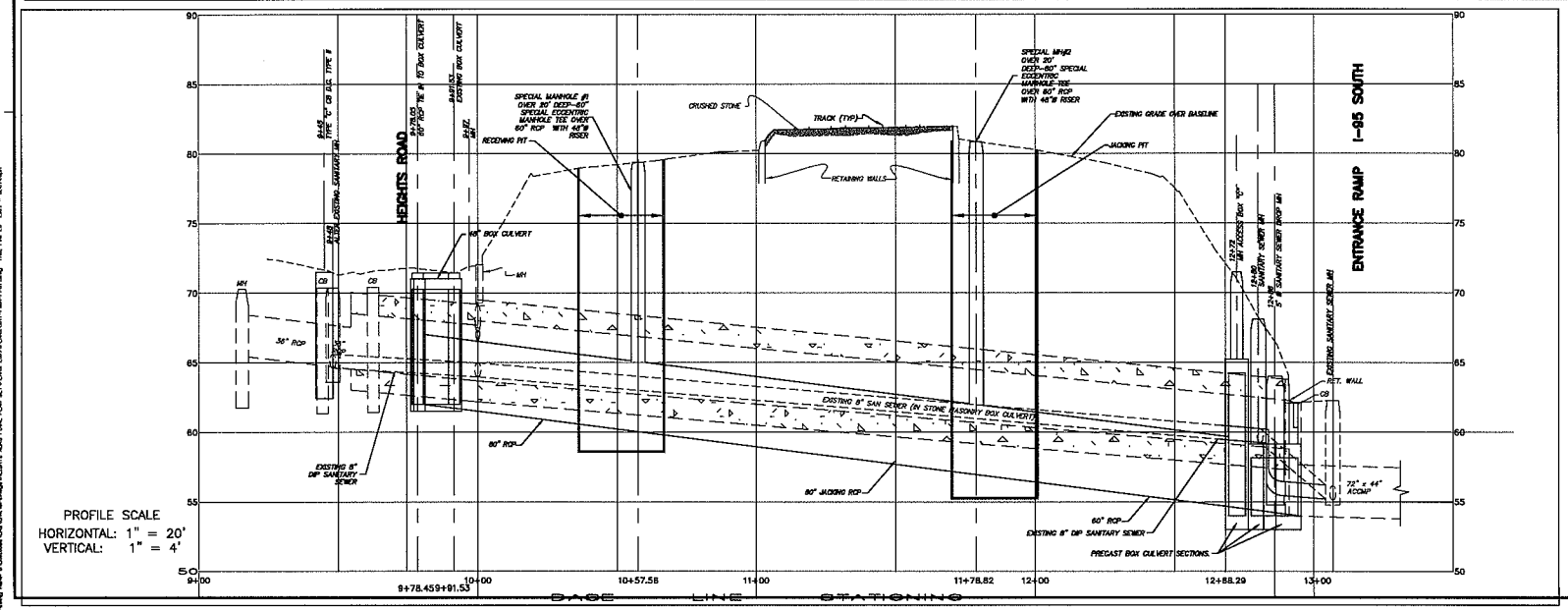
GENERAL NOTES

PROJECT NO. 50010086

G-1

SHEET NO. 2 OF 14





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TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

SEAL

KEY PLAN

DRAWN BY	PAB
APPROVED BY	
CHECKED BY	MJW
DATE	04/04/2006

SCALE
1"=20' (PLAN)
PROFILE (AS NOTED)

TOWN OF DARIEN
FAIRFIELD COUNTY
CONNECTICUT
HEIGHTS ROAD
RAILROAD CULVERT
IMPROVEMENTS

No.	DATE	BY	Description

REVISIONS

TITLE
PLAN & PROFILE

PROJECT NO. 50010086

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SHEET NO. 4 OF 14

WATER HANDLING NOTES

WATER HANDLING – SUGGESTED WATER HANDLING SEQUENCE IS INCLUDED IN THE SUGGESTED SEQUENCE.

NOTE: DURING ALL PHASES OF CONSTRUCTION, NO CONSTRUCTION WATER SHALL BE DISCHARGED INTO THE EXISTING OR PROPOSED CULVERTS UNLESS THE WATER IS TREATED, CLEAN AND FREE OF ALL SEDIMENT. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING FOR THE SATISFACTORY CLEANING OF STORM FLOWS.

SUGGESTED SEQUENCE

PHASE 1 JACK PIPE

1.1 JACK 60" DIAMETER R.C.P. UNDER RAILROAD TRACKS; INSTALL SPECIAL MANHOLES TO GRADE; INSTALL REMAINING 60" R.C.P. TO HEIGHTS ROAD ON NORTH SIDE AND TO BASELINE STA. 12+60± ON SOUTH SIDE. BACKFILL AND COMPACT; REMOVE SOLDIER PILES AND LAGGING WHERE BACKFILLING HAS BEEN COMPLETED AND BULKHEAD IN VERTICAL PLANE NEAR ENDS OF 60" RCP.

1.2 DO NOT DISTURB EXISTING STORM SEWER SYSTEM IN HEIGHTS ROAD: KEEP SYSTEM FUNCTIONING (MASONRY BOX CULVERT TO BE KEPT IN SERVICE).

PHASE 2 BYPASS SANITARY SEWER

2.1 INSTALL TEMPORARY SANITARY MH AT BASELINE STA. 12+88± AT SOUTH SIDE (LOCATION OF PROPOSED DROP SSMH); INSTALL 18 LF 10" PVC FROM TEMPORARY MH TO EXISTING SANITARY SEWER MH IN I-95 ENTRANCE RAMP.

2.2 INSTALL SANITARY SEWER BYPASS; PLUG 8" DIP SS LINE IN SANITARY SEWER MH IN HEIGHTS ROAD. PUMP FROM UPSTREAM SANITARY SEWER MH IN HEIGHTS ROAD TO DOWNSTREAM MANHOLE IN I-95 ENTRANCE RAMP; UTILIZE THE 60" RCP TO RUN BYPASS LINE

OR ALTERNATELY INSTALL A TEMPORARY GRAVITY LINE THROUGH THE 60" RCP TO THE SANITARY SEWER MH IN THE I-95 ENTRANCE DRIVE.

2.3 BY-PASS SANITARY SEWER FLOWS.

PHASE 3 SOUTH SIDE (I-95 ENTRANCE RAMP)

3.1 REMOVE SOUTHERLY END OF EXISTING MASONRY BOX CULVERT NECESSARY TO INSTALL THE PROPOSED PRECAST BOX SECTIONS: BULKHEAD STONE MASONRY CULVERT TO ACCOMMODATE BYPASSING STORM FLOWS. INSTALL A TEMPORARY BY-PASS PIPE AND/OR BY-PASS PUMPING FROM THE EXISTING STONE CULVERT TO THE EXISTING 72"X44" ACCMP TO THE SOUTH MAINTAINING STORMWATER FLOW. THE 2-YEAR DESIGN FLOW IS 39.3 CFS. PUMPS AND STORAGE CAPACITY MUST BE PROVIDED TO ACCOMMODATE THIS FLOW AT A MINIMUM.

3.2 BY-PASS STORM FLOWS: AT THE END OF EACH WORK DAY WHEN THE BY-PASS IS IN PLACE, THE PROPOSED DRAINAGE SHOULD BE UNOBSTRUCTED TO ALLOW A LARGER STORM EVENT TO PASS TO THE EXISTING 72"X44" ACCMP. THE EXPOSED EXCAVATION SHALL BE PROTECTED TO PREVENT SEDIMENT FROM ENTERING THE EXISTING DRAINAGE SYSTEM.

3.3 INSTALL BOX SECTIONS; MAKE WATERTIGHT CONNECTIONS AT STONE MASONRY CULVERT, AT 60" RCP, AND AT 72" X 44" ACCMP.

3.4 INSTALL STEEL SLEEVED 8" DIP SANITARY SEWER LINE THROUGH BOX SECTION "C" TO SANITARY SEWER MH ON BOX SECTION "B".

3.5 INSTALL SANITARY SEWER DROP MANHOLE AT BASELINE STA. 12+86±; CONNECT TO PREVIOUSLY INSTALLED DOWNSTREAM 10" PVC (SEE 2.1 ABOVE). REMOVE TEMPORARY MANHOLE. COMPLETE SANITARY SEWER PIPE INSTALLATION BY INSTALLING 16 LF 10" PVC FROM SSMH ON BOX SECTION "B" TO SS DROP MH. CONSTRUCT INVERTS IN MANHOLES.

3.6 REMOVE SANITARY SEWER BY-PASS.

3.7 INSTALL CONCRETE INVERT IN BOX SECTIONS; BACKFILL AND COMPACT BOX SECTIONS REMOVE SOLDIER PILES AND LAGGING.

3.8 INSTALL FRAME AND GRATE ON CB ON BOX SECTION "A"; INSTALL TEMPORARY PAVEMENT.

PHASE 4 NORTH SIDE (HEIGHTS ROAD)

4.1 COORDINATE THE RELOCATION OF THE EXISTING HYDRANT AT HEIGHTS ROAD STA 6+70± TO NEW LOCATION AT STA. 6+45±. (ACTUAL RELOCATION WORK BY OTHERS). INSTALL TEMPORARY PAVEMENT.

4.2 INSTALL STORM WATER BY-PASS FROM 15" RCP AT CB AT STA. 6+50± HEIGHTS ROAD TO BULKHEADED 60" RCP; MAINTAIN STORMWATER FLOW BY BY-PASS PUMPING OR TEMPORARY GRAVITY LINES. PICK UP PARKING LOT CB. THE 2-YEAR DESIGN FLOW FOR THE EXISTING 15" R.C.P. IS 5.4 CFS. PUMPS AND STORAGE CAPACITY MUST BE PROVIDED TO ACCOMMODATE THIS FLOW AT A MINIMUM.

4.3 REMOVE STONE MASONRY CULVERT AT BASELINE STA. 9+78± TO STA. 9+91±; PROTECT EXISTING 8" DIP SANITARY SEWER LINE.

4.4 INSTALL WESTERLY PORTION OF 48" PRECAST BOX CULVERT: INSTALL SPECIALLY MANUFACTURED 48" PRECAST BOX CULVERT AT 8" DIP SANITARY SEWER LOCATION; INSTALL SPLIT STEEL SLEEVE ON 8" DIP SANITARY SEWER LINE THROUGH 48" BOX CULVERT; INSTALL REMAINING 48" PRECAST CULVERT TO WEST. MAKE WATERTIGHT CONNECTIONS TO MASONRY BOX CULVERT AND AROUND PENETRATIONS FOR SANITARY SEWER.

4.5 INSTALL REMAINING 48" BOX CULVERT SECTIONS TO EAST (HEIGHTS ROAD STA. 6+50±). MAKE WATERTIGHT CONNECTIONS FOR CROSS CULVERTS AND 60" RCP. INSTALL TEMPORARY PAVEMENT. REMOVE REMAINING SOLDIER PILES AND LAGGING, IF ANY.

4.6. INSTALL TYPE "C" D.G. TYPE 2 CATCH BASIN AT BASELINE STA. 9+45±. INSTALL TEMPORARY PAVEMENT. MAINTAIN STORMWATER FLOW BY BY-PASS PUMPING. THE 2-YEAR DESIGN FLOW FOR THE EXISTING 38" R.C.P. IS 22.5 CFS. PUMPS AND STORAGE CAPACITY MUST BE PROVIDED TO ACCOMMODATE THIS FLOW AT A MINIMUM.

4.7 INSTALL CONCRETE INVERT IN 48" PRECAST BOX CULVERT; INSTALL REINFORCED CONCRETE RISER WITH CB FRAME SUPPORTS AND CB FRAMES., INSTALL TEMPORARY PAVEMENT.

4.8 REMOVE STORM WATER BY-PASS.

PHASE 5 SOUTH SIDE

5.1 INSTALL MASONRY RETAINING WALL BEHIND CATCHBASIN ON SOUTH SIDE, BASE LINE STA. 12+92±.

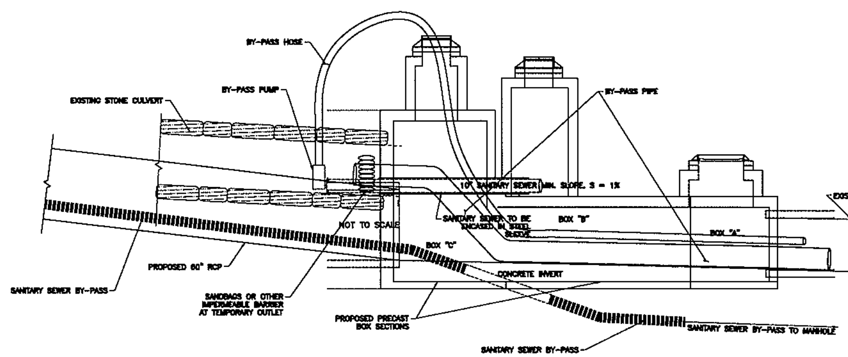
5.2 REMOVE TEMPORARY PAVEMENT AND INSTALL PERMANENT PAVEMENT. INSTALL BCLC. PLACE TOPSOIL, LANDSCAPING AND MULCH.

PHASE 6 NORTH SIDE

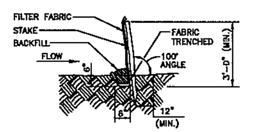
6.1. INSTALL SIDEWALK WITH MONOLITHIC CURB AT HEIGHTS ROAD. INSTALL SIDEWALK AT DOUBLE GRATE CB.

6.2 REMOVE TEMPORARY PAVEMENT AND INSTALL PERMANENT PAVEMENT. WARP PAVEMENT FOR POSITIVE DRAINAGE TO BASIN GRATES.

6.3 PLACE TOPSOIL, LANDSCAPE AND MULCH.



WATER HANDLING SCHEMATIC AT SOUTH SIDE



SILT FENCE INSTALLATION

A) MINIMUM LENGTH OF SILT FENCE IS 15 L.F.

B) MAXIMUM POST SPACING IS 10 L.F.

C) JOINTS ONLY AT SUPPORT POST WITH MINIMUM 6" OVERLAP, SECURELY SEALED.

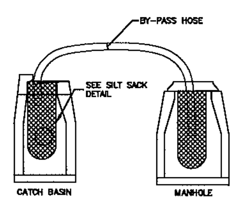
D) SEDIMENTATION DEPOSITS SHALL BE REMOVED WHEN THEY REACH 1/2 THE HEIGHT OF THE SILT FENCE.

E) SILT FENCE SHALL NOT BE USED IN A WATER COURSE.

F) UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS, AND WHEN DIRECTED BY THE ENGINEER, FENCE WILL BE REMOVED AND ANY SEDIMENTATION WILL BE THINLY SPREAD UPON EXISTING GROUND COVER.

SEDIMENTATION AND EROSION CONTROL DETAILS

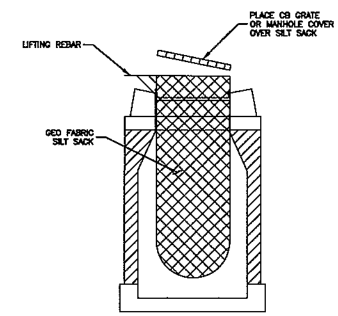
NOT TO SCALE



NOTE:
BYPASS BETWEEN CBs AND MHs ARE TO BE DONE IN THE SAME MANNER.

PUMPING BY-PASS SCHEMATIC

NOT TO SCALE



"SILTSACK" DETAIL

INSTALL IN CATCH BASINS OR MANHOLES

Dewberry®
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PLANNERS
SURVEYORS
59 ELM STREET
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NEW HAVEN, CT 06510

TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

SEAL

KEY PLAN

DRAWN BY: PBGTAILS
APPROVED BY:
CHECKED BY: MJW
DATE: 04/04/2008

SCALE

TOWN OF DARIEN
FAIRFIELD COUNTY
CONNECTICUT

HEIGHTS ROAD
RAILROAD CULVERT
IMPROVEMENTS

No.	DATE	BY	Description

REVISIONS

TITLE

DETAILS

PROJECT NO. 50010086

D-1

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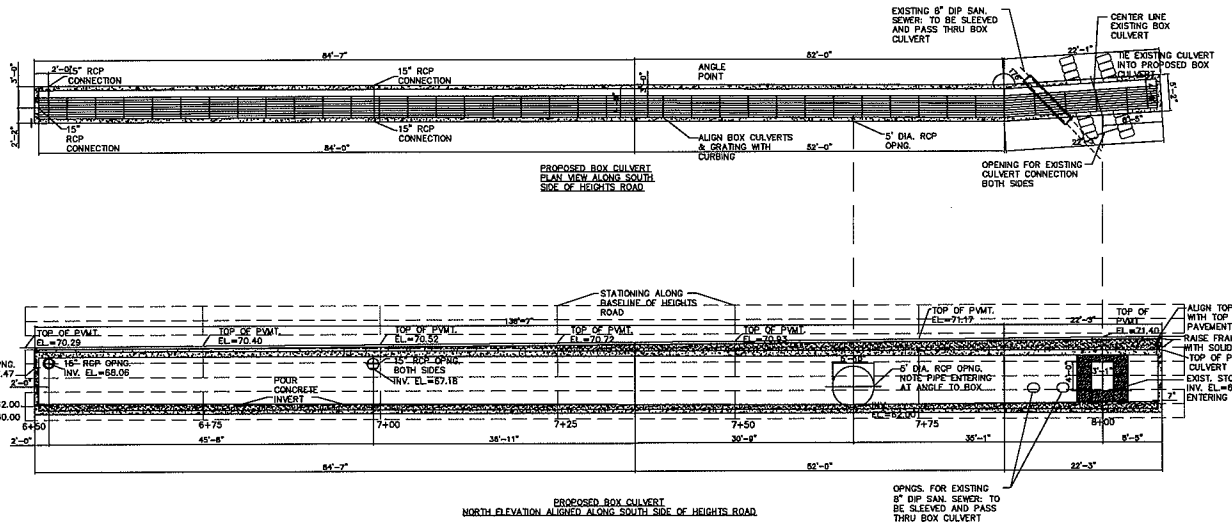
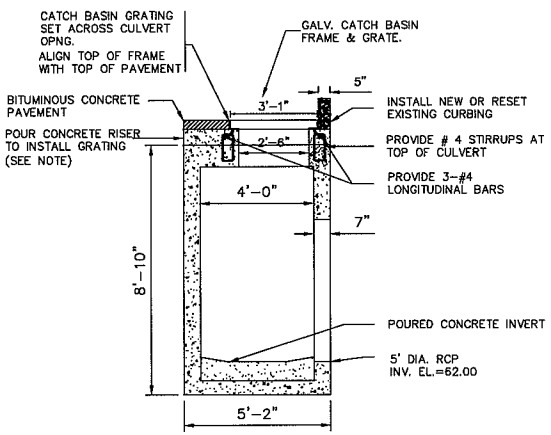
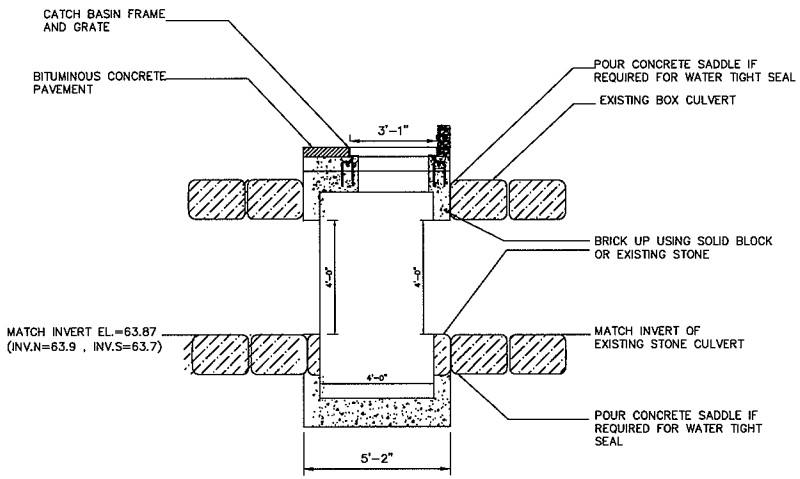




NOTE: RISER THICKNESS SHALL BE MINIMUM OF 8" TO ACCOMODATE EMBEDDED S4 x 9.5 AND LONDITUDINAL REINFORCEMENT.

PROPOSED BOX CULVERT
EAST ELEVATION–SOUTH SIDE OF HEIGHTS ROAD



PROPOSED BOX CULVERT
AT EXISTING STONE CULVERT

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TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

SEAL

KEY PLAN

DRAWN BY PAS
APPROVED BY
CHECKED BY MJW
DATE 04/04/2008

SCALE

TOWN OF DARIEN
FAIRFIELD COUNTY
CONNECTICUT
HEIGHTS ROAD
RAILROAD CULVERT
IMPROVEMENTS

No.	DATE	BY	Description

REVISIONS

TITLE

DETAILS

PROJECT NO. 50010086

D-2

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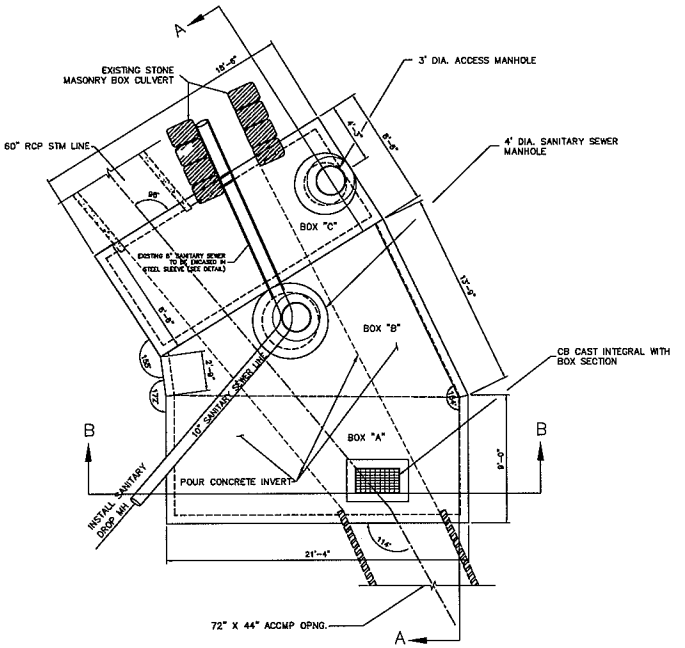
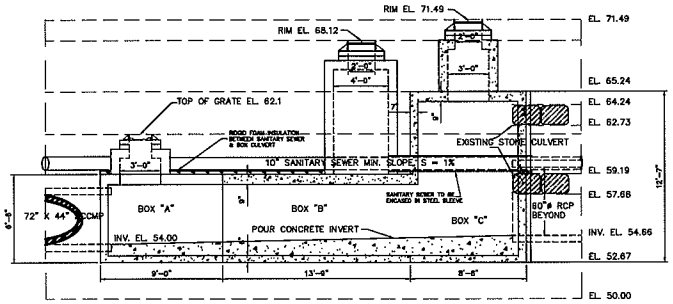
PROPOSED BOX CULVERT – SOUTH END

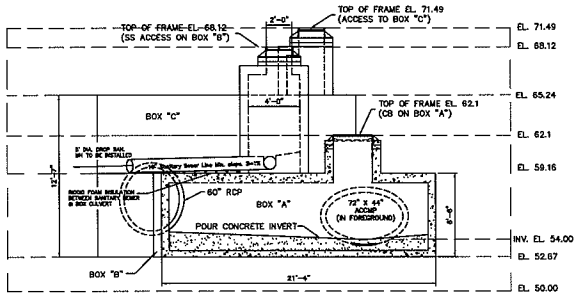
START STATION 12+68.29 END STATION 12+95.35



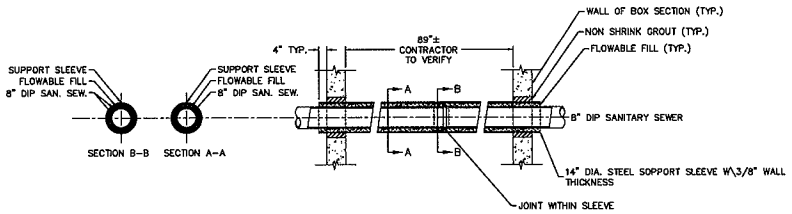
PLAN VIEW



SECTION A–A



SECTION B–B



NOTES:

1. SLEEVE AT BOX CULVERT AT HEIGHTS ROAD SIMILAR. HEIGHTS ROAD SLEEVE TO BE SPLIT FOR INSTALLATION AND WELDED AFTER INSTALLATION AND PRIOR TO PLACEMENT OF FLOWABLE FILL.
2. CONTRACTOR TO EXPOSE 8" DIP SANITARY SEWER AT BOTH LOCATIONS TO DETERMINE LOCATIONS OF JOINTS IF ANY. 8" DIP SANITARY SEWER JOINTS SHALL BE PROTECTED.
3. IF NO JOINTS ARE PRESENT AT LOCATIONS TO BE SLEEVED, SUPPORT SLEEVE CAN BE REDUCED IN DIAMETER TO 12"; WALL THICKNESS TO REMAIN 3/8".
4. MATERIAL FOR SUPPORT SLEEVE SHALL CONFORM TO ASTM A-36; MATERIAL FOR FLOWABLE FILL SHALL CONFORM TO ITEM #0216012A "CONTROLLED LOW STRENGTH MATERIAL (PIPE FILL)".
5. STEEL SLEEVE SHALL BE COATED WITH ONE COAT OF BITUMIN MASTIC PAINT

8" DIP SANITARY SEWER SUPPORT SLEEVE DETAIL

Dewberry
Dewberry-Goodkind, Inc.
ENGINEERS PLANNERS SURVEYORS

TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

SEAL

KEY PLAN

DRAWN BY	PAS
APPROVED BY	
CHECKED BY	MJW
DATE	04/04/2008

SCALE

TOWN OF DARIEN
FAIRFIELD COUNTY
CONNECTICUT
HEIGHTS ROAD
RAILROAD CULVERT
IMPROVEMENTS

No.	DATE	BY	Description

REVISIONS

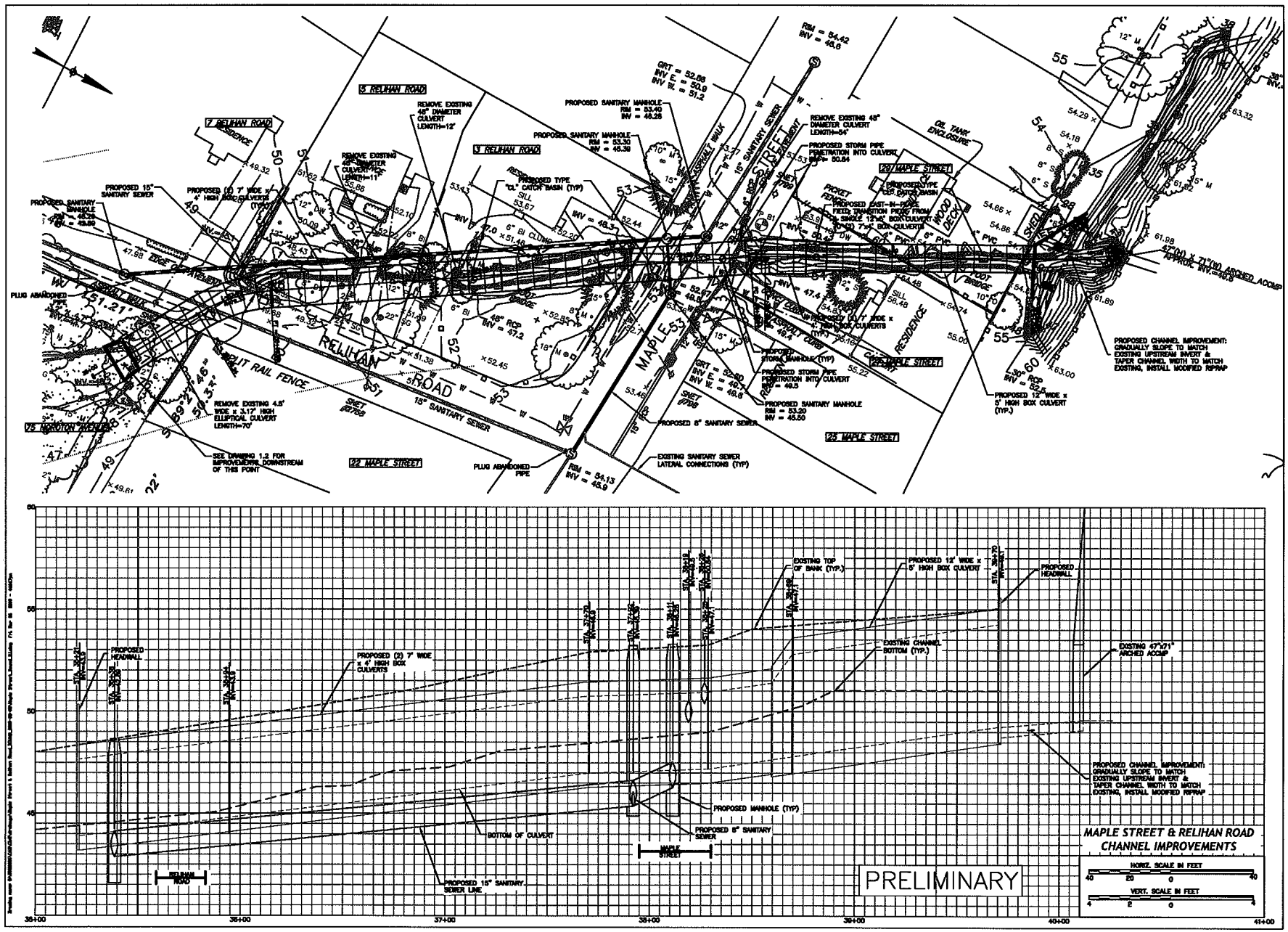
TITLE

DETAILS

PROJECT NO. 50010086

D-4

SHEET NO. 8 OF 14



PROJECT:

STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:

TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

PREPARED BY:

Dewberry

Dewberry - Goodkind, Inc.

SEAL:

REVISION SCHEDULE:

NO.	DATE	DESCRIPTION

DATE: 2/10/09

SCALE:

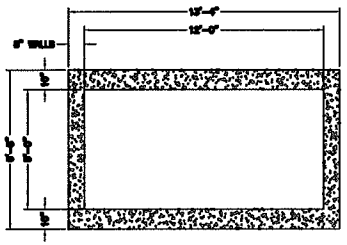
NOT FOR CONSTRUCTION

DRAWING TITLE:

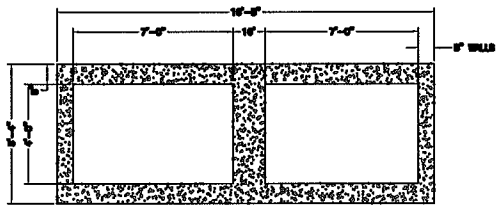
CT DEP IWRD PERMIT CHANNEL IMPROVEMENT PLAN

DRAWING NUMBER:

2.1



SECTION VIEW OF PROPOSED
BOX CULVERT W/LOW FLOW CHANNEL
NOT TO SCALE



SECTION VIEW OF PROPOSED DUAL
BOX CULVERT W/LOW FLOW CHANNEL
NOT TO SCALE

PRECAST BOX CULVERT NOTES:

PRECAST CONCRETE BOX CULVERT SECTIONS AND END SECTIONS SHALL BE DESIGNED BY THE MANUFACTURER, SHALL BE APPROVED AND SIGNED BY A PROFESSIONAL ENGINEER AND SHALL CONFORM TO THE PLANS AND SPECIFICATIONS AND THE FOLLOWING:

1. THE CULVERT SHALL BE CONSTRUCTED OF FOUR SIDED SECTIONS WITH OPEN ENDS MONOLITHICALLY PRECAST OF REINFORCED CONCRETE TO THE INSIDE DIMENSIONS AND FILLETS SHOWN. ROOF, FLOOR AND SIDEWALL THICKNESSES SHALL BE ADEQUATE TO CARRY ALL DESIGN STRESSES.

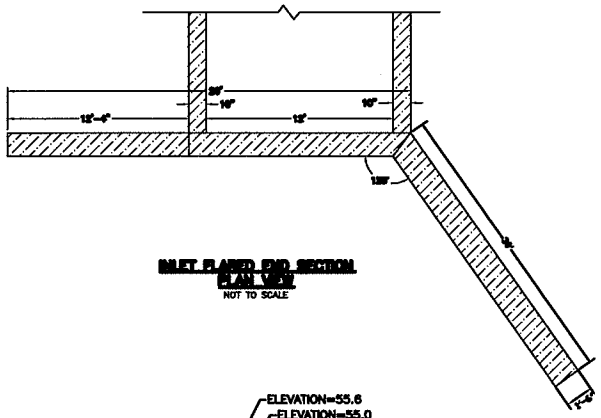
2. SEE GENERAL NOTES FOR GENERAL DESIGN CRITERIA.

3. EACH SECTION SHALL HAVE MALE AND FEMALE ENDS WITH NOT LESS THAN 12" CONCRETE OVERLAP. EACH JOINT SHALL BE PROVIDED WITH A NEOPRENE OR OTHER SUITABLE GASKET. JOINTS SHALL FIT TIGHT AND PROVIDE GOOD ALIGNMENT OF SECTIONS AND INSIDE SURFACES.

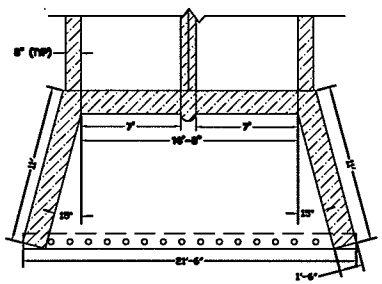
4. LIFTING HOOKS AND DEVICES ARE REQUIRED FOR LIFTING, HANDLING AND PLACING THE SECTIONS. THREADED INSERTS ARE REQUIRED FOR ATTACHING HEADWALLS AND CAST-IN-PLACE CUT-OFF WALLS.

WATER HANDLING PLAN FOR CULVERT INSTALLATION:

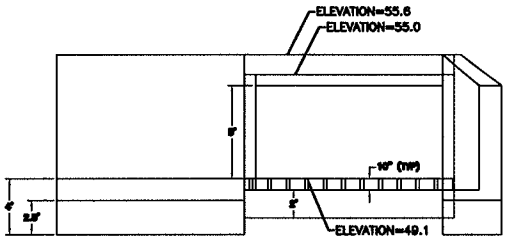
1. EROSION AND SEDIMENT CONTROL (E&S) MEASURES SHALL BE CONSTRUCTED PRIOR TO ANY CONSTRUCTION ACTIVITY. E&S MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 GUIDELINES FOR SOIL AND EROSION AND SEDIMENT CONTROL" WITH ALL CURRENT AMENDMENTS.
2. THE CONTRACTOR SHALL COMMENCE CONSTRUCTION AT THE DOWNSTREAM END (OUTLET FLARED END SECTION) AND PROGRESS UPSTREAM.
3. CONSTRUCTION SHALL TAKE PLACE IN PERIODS OF LOW FLOW.
4. THE EXISTING STONE CHANNEL AND CULVERT PIPES SHALL BE REMOVED IN LIMITED PORTIONS AS THE NEW CONCRETE BOX CULVERT IS INSTALLED.
5. CONSTRUCTION OF THE RIPRAP OUTLET PROTECTION AND TEMPORARY STONE DAM SHALL BE COMPLETED PRIOR TO THE INSTALLATION OF THE CULVERT TO ALLOW FOR DISCHARGE AND SEDIMENT-TRAPPING DURING CONSTRUCTION.
6. RIPRAP OUTLET PROTECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DRAWINGS.
7. THE LENGTH OF CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE MINIMUM REQUIRED FOR THE NEW CULVERT INSTALLATION AS DETERMINED BY THE ENGINEER.
8. A COFFERDAM AND PUMP SYSTEM SHALL BE INSTALLED AT THE UPSTREAM LIMIT OF THE CONSTRUCTION AREA DAILY.
9. PUMP(S) SHALL BE HYDRAULICALLY DRIVEN AXIAL FLOW PUMPS, AS PER APPENDIX F OF CHAPTER 9 IN THE CONNECTICUT DOT DRAINAGE MANUAL. THE PUMP WILL BE REQUIRED TO CONVEY A 2-YEARS STORM FLOW OF 93 CUBIC FEET PER SECOND (CFS).
10. TEMPORARY COFFERDAMS AND PUMPS SHALL BE REMOVED AND REPLACED AS CONSTRUCTION PROGRESSES UPSTREAM. THE PUMP SHOULD BE LOCATED IN AREAS THAT, APART FROM MOVEMENT REQUIRED AS CONSTRUCTION PROGRESSES UPSTREAM, WILL NOT REQUIRE CONSTANT MOVING.
11. STREAM FLOWS FROM UPSTREAM OF THE EXCAVATION SHALL BE PUMPED AROUND THE EXCAVATION TO AVOID MOVEMENT OF WATER THROUGH THE EXCAVATION AND ANY FRESH CONCRETE. AS CONSTRUCTION PROGRESSES UPSTREAM, STREAM FLOWS SHALL BE PUMPED INTO THE NEWLY CONSTRUCTED BOX CULVERT, DOWNSTREAM OF THE CONSTRUCTION AREA.
12. DEWATERING OF THE CONSTRUCTION AREA SHALL BE AN INDEPENDENT PUMPING OPERATION WITH THE INSTALLATION OF WELL POINTS AND PUMPS THAT SHALL DISCHARGE INTO AN APPROVED SEDIMENT DISCHARGE & COLLECTION SYSTEM.
13. A TEMPORARY PIPE SHALL BE INSTALLED AT THE END OF THE CONSTRUCTION DAY TO CONNECT THE EXISTING CULVERT OR CHANNEL TO THE NEWLY INSTALLED BOX CULVERT.
14. INSPECT DEWATERING OPERATIONS FREQUENTLY, INCLUDING BEFORE AND AFTER PUMPING. CORRECT ALL DEFICIENCIES IMMEDIATELY.



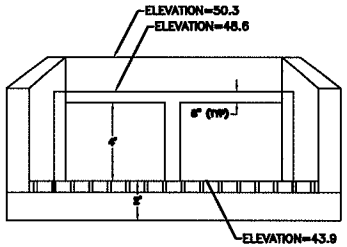
INLET FLARED END SECTION
PLAN VIEW
NOT TO SCALE



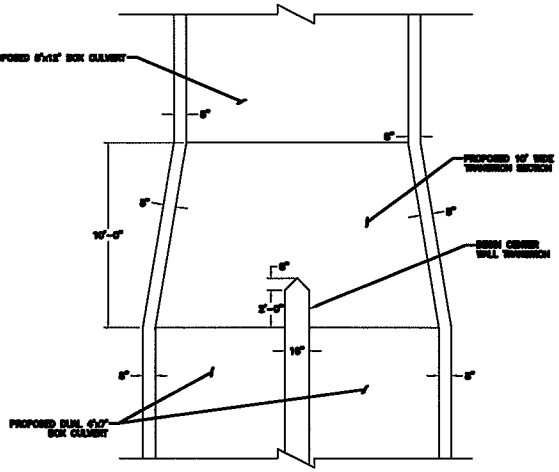
OUTLET FLARED END
SECTION PLAN VIEW
NOT TO SCALE



INLET FLARED END SECTION
ELEVATION VIEW
NOT TO SCALE



OUTLET FLARED END
SECTION ELEVATION VIEW
NOT TO SCALE



TRANSITION SECTION PLAN
VIEW
NOT TO SCALE

MAPLE STREET & RELIHAN ROAD
CHANNEL IMPROVEMENTS

PROJECT:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN
DEPARTMENT OF PUBLIC WORKS

PREPARED BY:
Dewberry
Dewberry - Goodkind, Inc.
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FAX: 203.776.2295

SEAL:

REVISION SCHEDULE:

NO	DATE	ISSUED FOR

DATE: 2/10/09
SCALE:

NOT FOR CONSTRUCTION

DRAWING TITLE:
CT DEP IWRD PERMIT
DETAILS

DRAWING NUMBER:
2.2

10 of 14

C. SEEDING DATES

SPRING SEEDINGS USUALLY GIVE THE BEST RESULTS. SPRING SEEDINGS OF ALL SEED MIXES WITH LEGUMES IS RECOMMENDED, HOWEVER LATE SUMMER SEEDINGS PRIOR TO SEPTEMBER 1 CAN BE MADE. WHEN CROWN VETCH IS SEEDED IN LATE SUMMER AT LEAST 35 PERCENT OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). THE RECOMMENDED SEEDING DATES ARE:

APRIL 1 THROUGH JUNE 1
AUGUST 15 THROUGH SEPTEMBER 1

WITH THE EXCEPTION OF CROWN VETCH, THE FINAL SEEDING DATE MAY BE EXTENDED 15 DAYS.

D. SEEDING

1. THE SEED MIXTURE SHALL CONFORM TO CONNDOT FORM 818, SECTION M.13..
2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDINGS WHICH ARE MULCHED MAY BE LEFT ON SOIL SURFACE.
3. WHEREVER FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG. SEEDING OPERATIONS SHOULD BE ON THE CONTOUR.
4. FROST CRACK SEEDING CAN BE USED. FROST CRACK SEEDING MUST BE DONE IN LATE WINTER OR EARLY SPRING, SUITABLE WEATHER CONDITIONS ARE FREEZING NIGHTS AND THAWING DAYS WITH LITTLE OR NO SNOW COVER. SEEDING RATES MUST BE INCREASED 10 PERCENT WHEN USING THIS METHOD.
5. HYDRAULIC APPLICATION (HYDROSEEDING), IS A SUITABLE METHOD FOR USE IN CRITICAL AREAS. WHEN HYDROSEEDING, A SEEDBED IS PREPARED IN THE CONVENTIONAL WAY OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE STONES LARGER THAN SIX INCHES IN DIAMETER. SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY). LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF THE FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). FIBER MULCH DOES NOT PROVIDE ADEQUATE SEEDBED PROTECTION. BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH. SEEDING RATES MUST BE INCREASED 10 PERCENT WHEN HYDROSEEDING.
6. APPLY MULCH ACCORDING TO TEMPORARY MULCHING MEASURES.
7. IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, USE THE TEMPORARY MULCHING MEASURES TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

I. TEMPORARY VEGETATIVE COVER

1. PURPOSE

TO TEMPORARILY STABILIZE THE SOIL AND REDUCE DAMAGE FROM WIND AND/OR WATER EROSION.

2. INSTALLATION REQUIREMENTS

A. SITE PREPARATION
(1) SITE PREPARATION SHOULD BE CONDUCTED IN ACCORDANCE WITH THE MEASURE FOR LAND GRADING.

B. SEEDBED PREPARATION
(1) APPLY LIMESTONE AND FERTILIZER IN ACCORDANCE WITH PROCEDURES OUTLINED IN TOPSOILING SECTION.

C. SEEDING
(1) SELECT SEED FROM SPECIFICATIONS.
(2) WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER LIME AND SEED.
(3) APPLY SEED/MULCH UNIFORMLY AS INDICATED IN PERMANENT VEGETATIVE COVER SECTION.
(4) SEEDING MAY BE DONE FROM MAR.1 – OCT.15. IRRIGATE AS REQUIRED DURING DRY PERIODS.

J. DUST CONTROL

1. PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, AND REDUCE THE PRESENCE OF DUST WHICH MAY CAUSE OFF SITE DAMAGE, BE A HEALTH HAZARD TO HUMANS, WILDLIFE AND PLANTLIFE, OR A TRAFFIC SAFETY HAZARD.

2. INSTALLATION REQUIREMENTS

A. WATER
THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

B. STONE
COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL IN AREAS ADJACENT TO WATERWAYS, USE CHEMICALLY STABLE AGGREGATE.

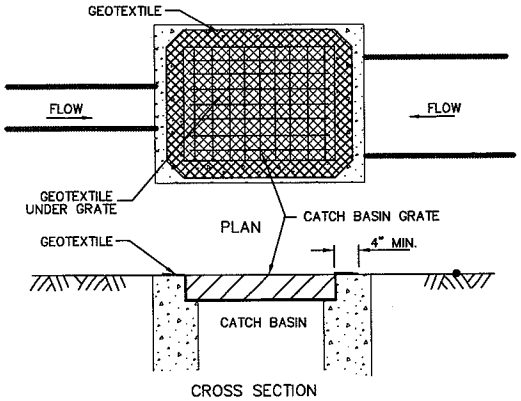
3. MAINTENANCE

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

K. INSPECTION

THE TOWN WILL MAINTAIN A FULL TIME INSPECTION SCHEDULE DURING CONSTRUCTION ACTIVITIES.

THE ENGINEER SHALL INSPECT AND ENFORCE ALONG WITH THE TOWN.



CROSS SECTION

NOTES:

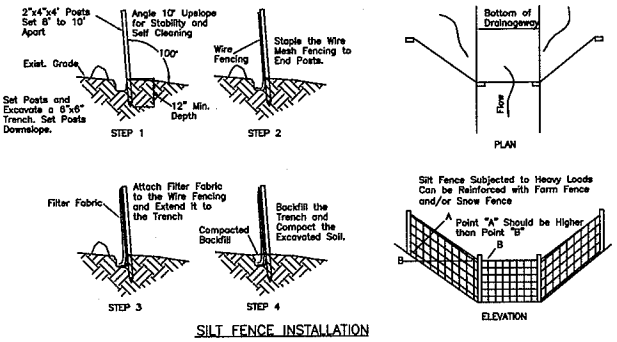
1. SECURE GEOTEXTILE DRAINAGE STRUCTURE INLET PROTECTION TO ALL CATCH BASINS TO INSURE SEDIMENT IS TRAPPED AND DOES NOT ENTER DRAINAGE STRUCTURE.

2. THE GEOTEXTILE DRAINAGE STRUCTURE INLET PROTECTION SHALL BE INSPECTED EVERY SEVEN (7) DAYS, AFTER EACH RAINFALL 1/2" OR MORE IN A 12 HOUR PERIOD, OR DAILY DURING PROLONGED RAINFALL. THE GEOTEXTILE DRAINAGE STRUCTURE INLET PROTECTION SHALL BE CLEANED AND REPAIRED AND/OR REPLACED AS REQUIRED.

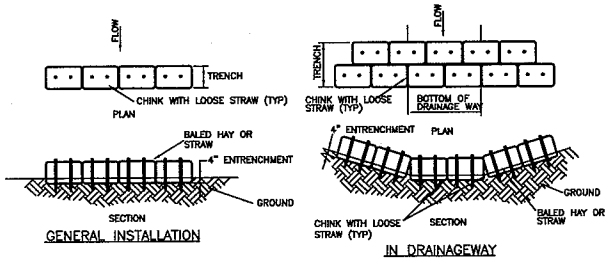
3. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF THE DEPTH OF THE CATCH BASIN GRATE.

4. THE TEMPORARY INLET PROTECTION SHALL BE REMOVED UPON COMPLETION OF THE PROJECT. ALL WORK SHALL MEET THE APPROVAL OF THE ENGINEER.

TEMPORARY DRAINAGE STRUCTURE INLET PROTECTION
NOT TO SCALE



SILT FENCE INSTALLATION



HAY BALE INSTALLATION

NOTES:

1. SILT FENCE SHALL BE INSTALLED AS SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.

2. MINIMUM LENGTH OF SILT FENCE SHALL BE 15 L.F.

3. MAXIMUM POST SPACING IS 10 L.F.

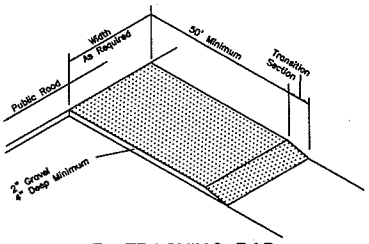
4. JOINTS ONLY AT SUPPORT POST WITH MINIMUM 6" OVERLAP, SECURELY SEALED.

5. SEDIMENTATION DEPOSITS SHALL BE REMOVED WHEN THEY REACH 1/2 THE HEIGHT OF THE SILT FENCE.

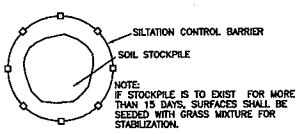
6. SILT FENCE SHALL NOT BE USED IN A WATER COURSE.

7. UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS, AND WHEN DIRECTED BY THE ENGINEER, FENCE WILL BE REMOVED AND ANY SEDIMENTATION WILL BE THINLY SPREAD UPON EXISTING GROUND COVER.

EARTH – SEDIMENTATION BARRIER DETAIL
NOT TO SCALE



ANTI-TRACKING PAD
NOT TO SCALE



STOCKPILE SILTATION CONTROL
NOT TO SCALE

MAPLE STREET & RELIHAN ROAD CHANNEL IMPROVEMENTS

PROJECT:

STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:

TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

PREPARED BY:

Dewberry

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SEAL:

REVISION SCHEDULE:

NO.	DATE	ISSUED FOR

DATE:

SCALE: 1"=20'

NOT FOR CONSTRUCTION

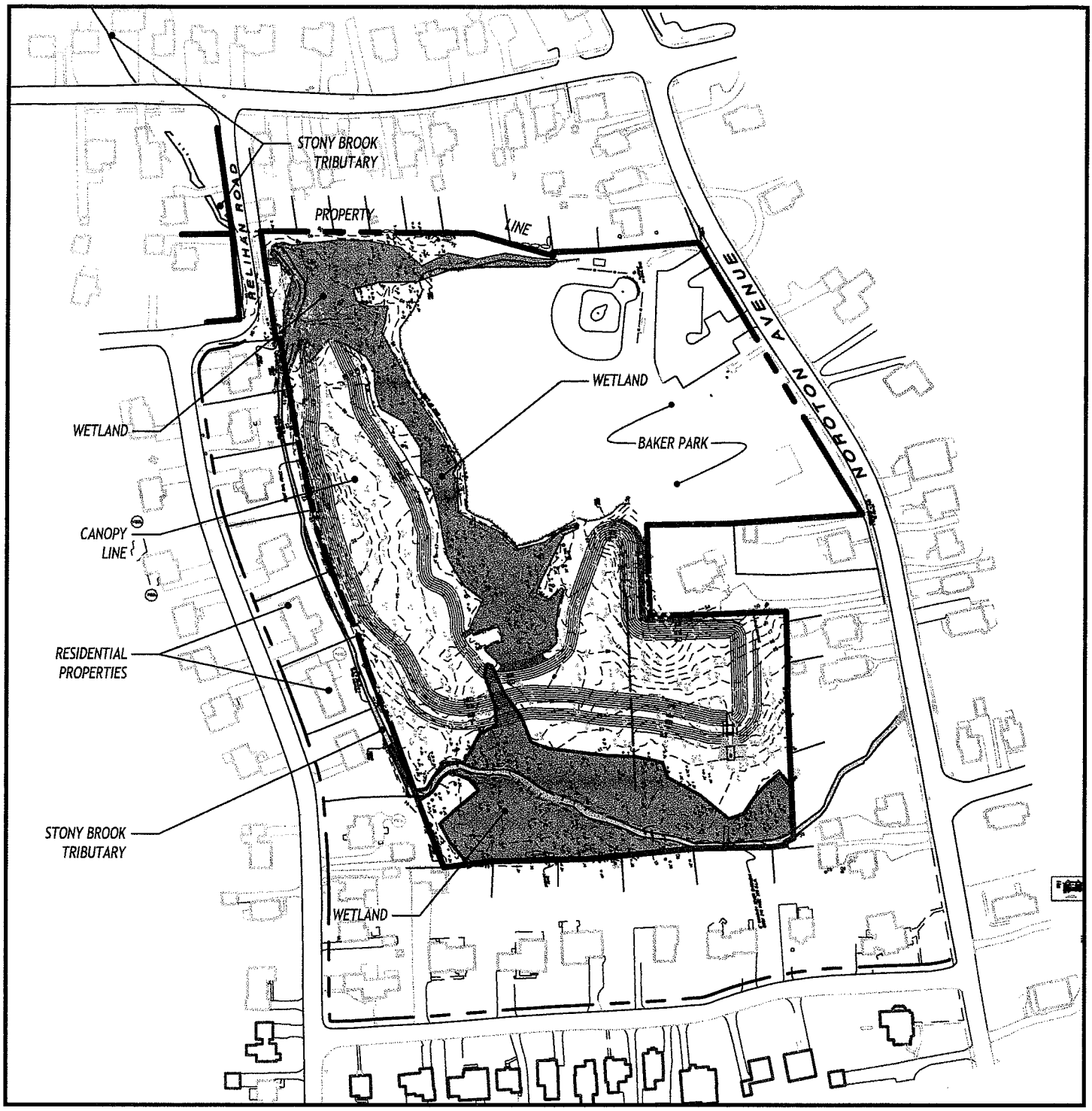
DRAWING TITLE:

CT DEP IWRD PERMIT

DETAILS

DRAWING NUMBER:

2.3



DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

217 WEBB ROAD
FAIRFIELD, CT 06825
PHONE: 203 366 0588
FAX: 203 366 0067
wkassociates.net

DRAWING NAME:
BAKER PARK FLOOD CONTROL IMPROVEMENTS: EXISTING CONDITIONS & KEY MAP

DRAWING NUMBER:
12 OF 42

NORTH

SCALE:

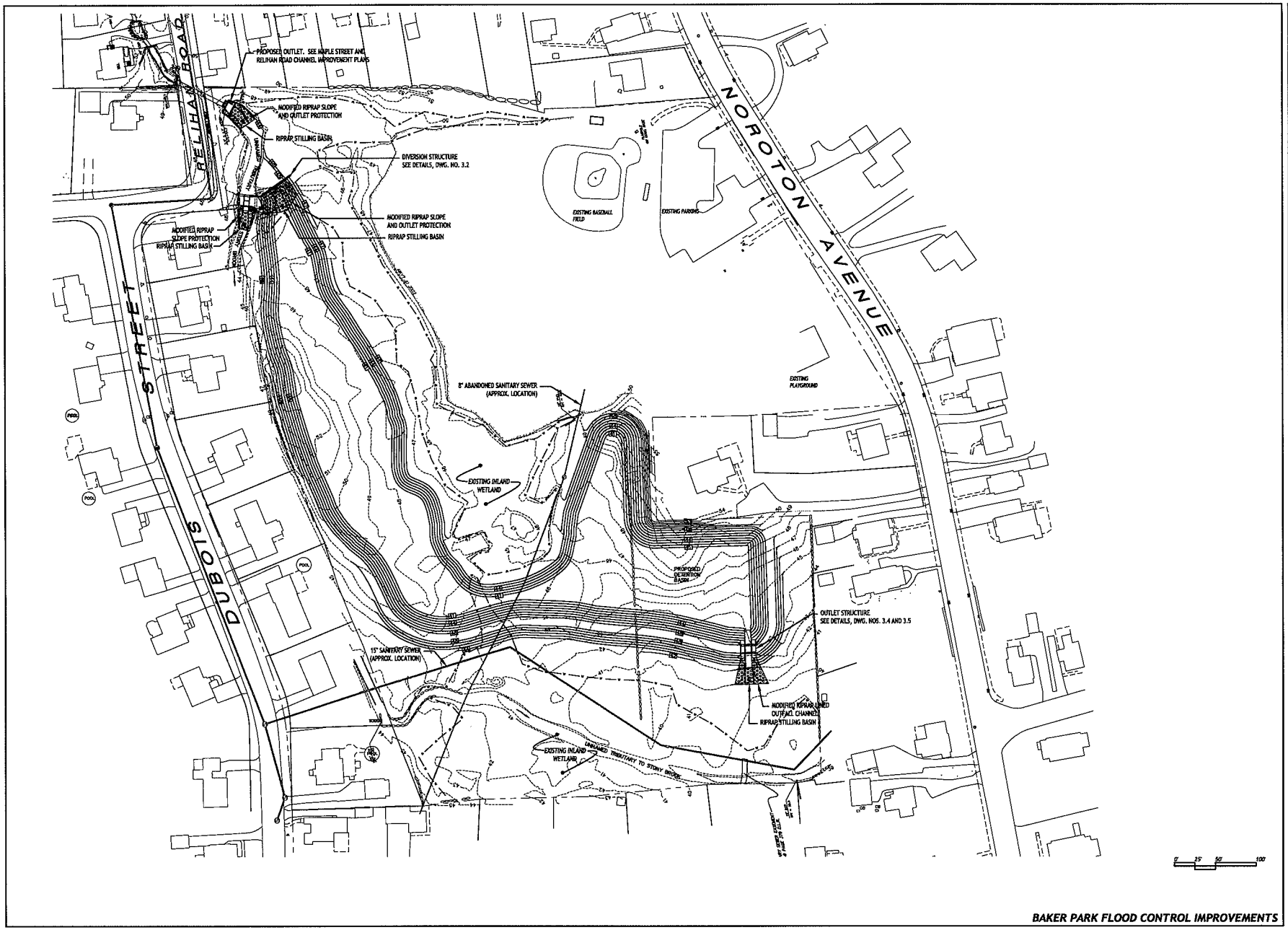
0' 100' 200' 400'

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: ***FEBRUARY 10, 2009***



BAKER PARK FLOOD CONTROL IMPROVEMENTS

PROJECT:

STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:

TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

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Michael P. Sears, PE #24781(CT)

REVISION SCHEDULE:

NO.	DATE	ISSUED FOR

DATE: 02/10/2009

SCALE: 1"= 50'

NORTH

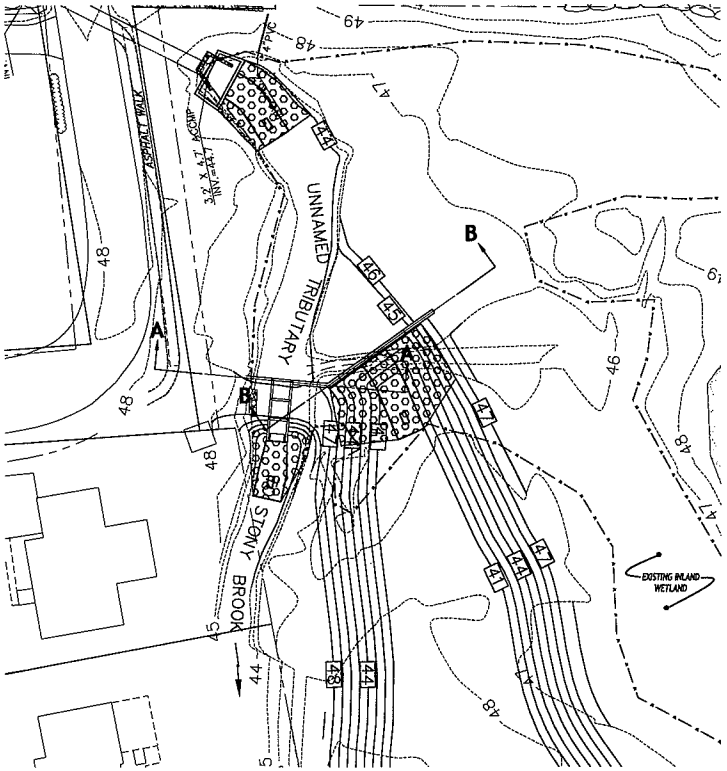
NOT FOR CONSTRUCTION

DRAWING TITLE:

BAKER PARK GRADING PLAN

DRAWING NUMBER:

3.2



PLAN
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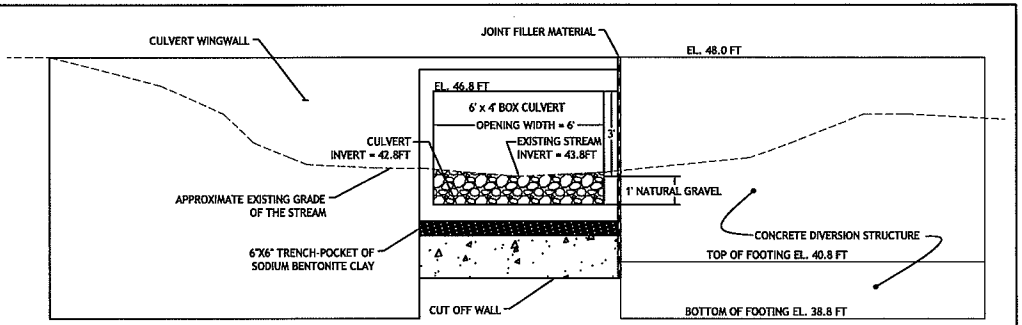
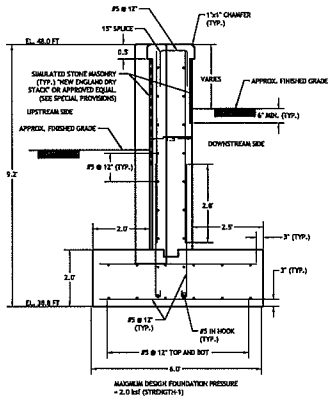


SECTION A-A
N.T.S



SECTION B1-B1
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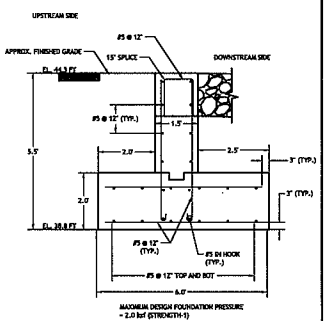

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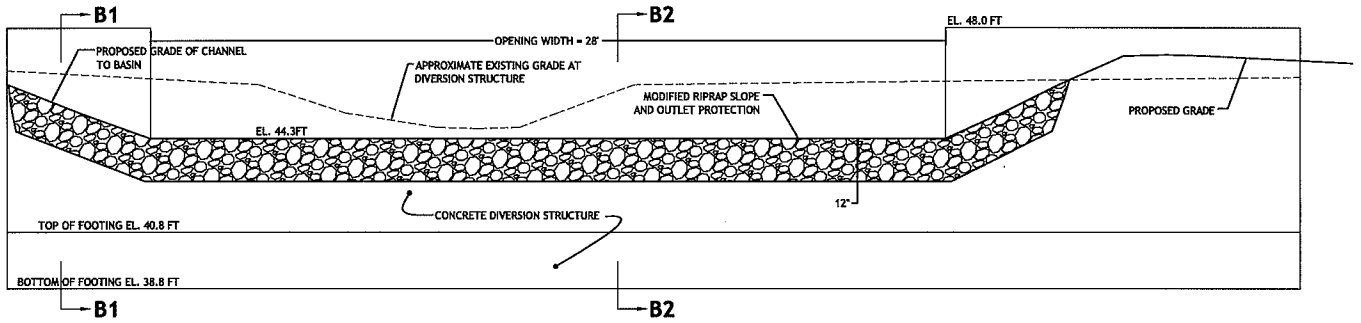

SECTION B-B
N.T.S

BAKER PARK FLOOD CONTROL IMPROVEMENTS

PROJECT:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN
DEPARTMENT OF PUBLIC WORKS

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REVISION SCHEDULE:

NO.	DATE	ISSUED FOR

DATE: 02/10/2009
SCALE: AS NOTED
NORTH

NOT FOR CONSTRUCTION

DRAWING TITLE:
BAKER PARK DIVERSION STRUCTURE DETAILS

DRAWING NUMBER:
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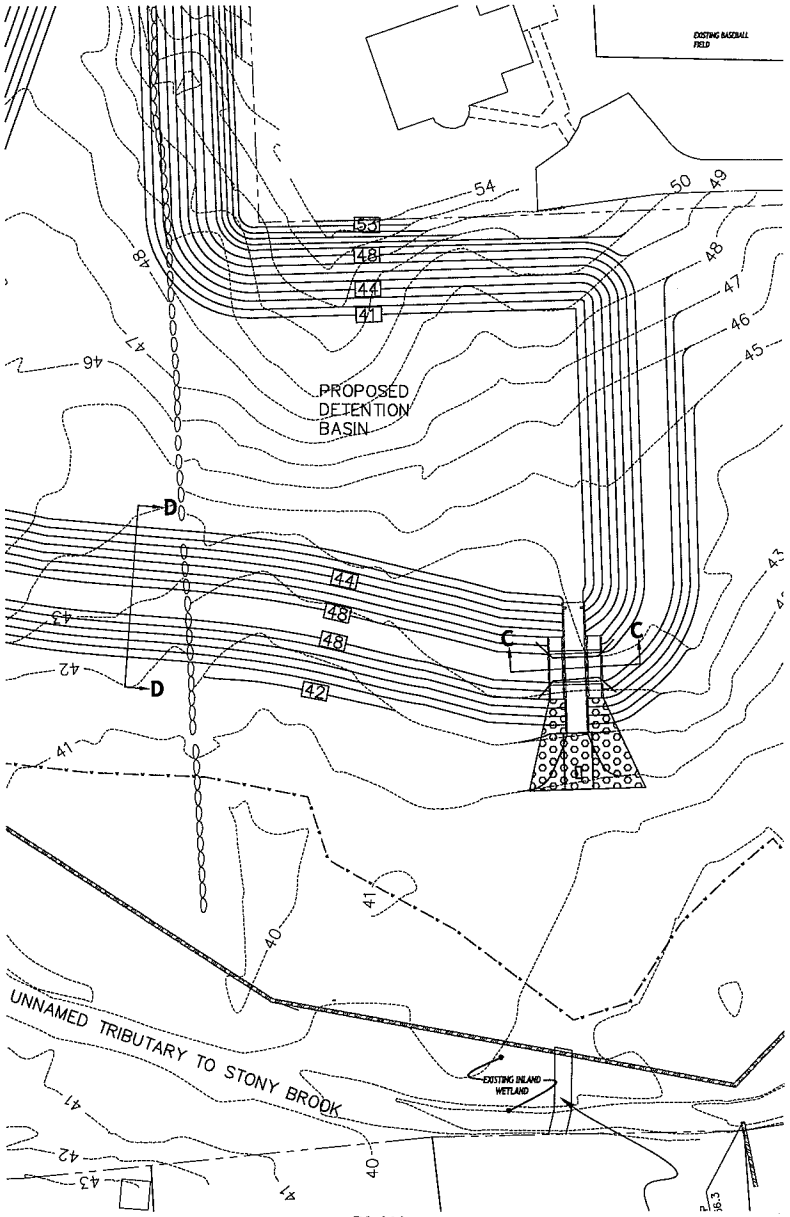
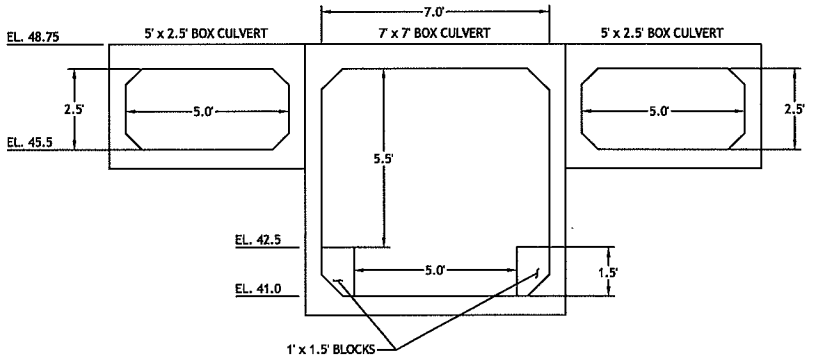
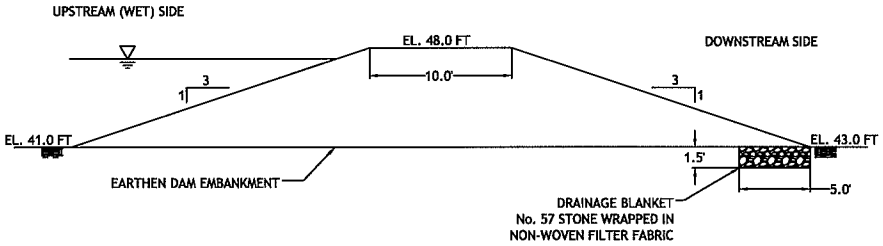


PLAN
SCALE: 1"= 20'



SECTION C-C
N.T.S



SECTION D-D
N.T.S

BAKER PARK FLOOD CONTROL IMPROVEMENTS

PROJECT:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN

DEPARTMENT OF PUBLIC WORKS

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REVISION SCHEDULE:

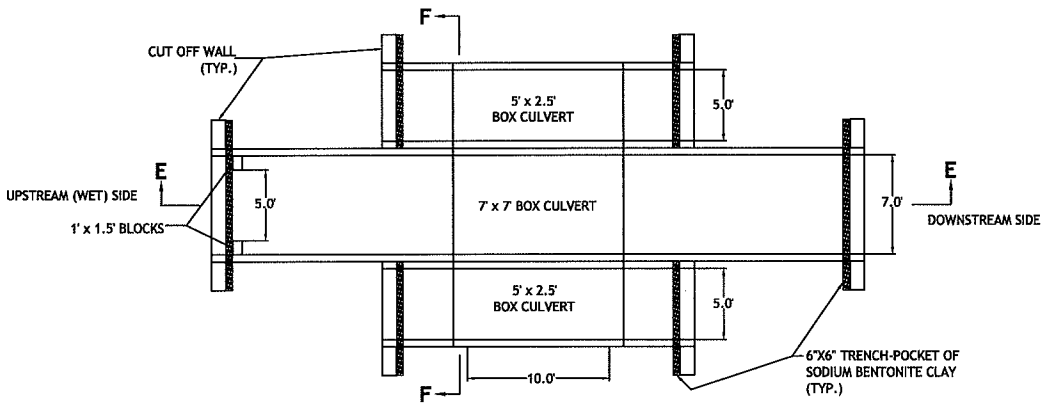
NO.	DATE	ISSUED FOR

DATE: 02/10/2009
SCALE: AS NOTED
NORTH

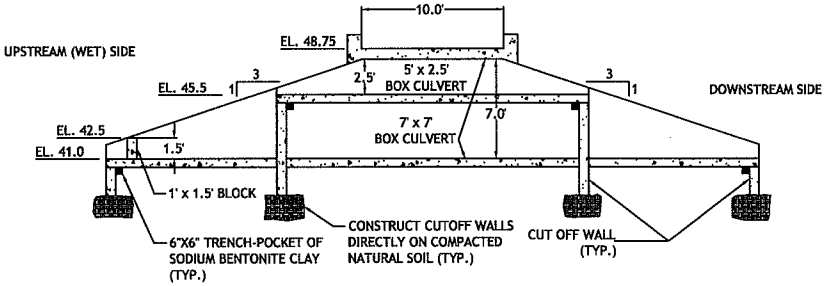
NOT FOR CONSTRUCTION

DRAWING TITLE:
BAKER PARK OUTFALL STRUCTURE

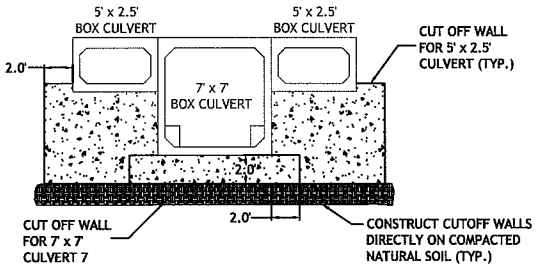
DRAWING NUMBER:
3.4



PLAN
SCALE: 1"= 20'



SECTION E-E
N.T.S



SECTION F-F
N.T.S

GENERAL NOTES

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 814A (1995) INCLUDING SUPPLEMENTAL SPECIFICATIONS (JANUARY 2002) AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: DESIGN SPECIFICATIONS FOR HIGHWAY BRIDGES (1998 AASHTO LRFD) AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL (1997) WITH UPDATES.

ALLOWABLE DESIGN STRESSES: CONCRETE FOR PRECAST COMPONENTS BASED ON f'c = 5000 PSI

CLASS "A" CONCRETE BASED ON f'c = 3,000 PSI

REINFORCEMENT (ASTM A615 - GRADE 60) fy = 24,000 PSI

CLASS "A" CONCRETE: CLASS "A" CONCRETE SHALL BE USED POR THE CAST-IN-PLACE CUTOFF WALLS, RETURN WALLS, AND HEADWALLS.

LIVE LOAD: AASHTO LRFD HL-93

EXISTING DIMENSIONS: LOCATION OF THE EXISTING UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES, CABLES, OR UTILITIES ARE SHOWN. THE ACTUAL LOCATION OF UTILITIES SHALL BE DETERMINED BY CONTRACTOR, STATE LAW REQUIRES NOTIFICATION OF "CALL BEFORE YOU DIG" AT 1-800-922-4455 BEFORE EXCAVATING. CONTRACTOR SHALL EXERCISE CARE IN HIS EXCAVATION OPERATIONS SO AS TO NOT DISTURB EXISTING UTILITIES WHICH ARE TO REMAIN IN PLACE. CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SUPPORT OF UTILITIES TO REMAIN DURING THE CONSTRUCTION PERIOD.

EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" X 1" UNLESS DIMENSIONED OTHERWISE.

CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT: ALL REINFORCEMENT SHALL BE ASTM A615 (GRADE 60) UNLESS NOTED OTHERWISE.

FOUNDATION PRESSURES: THE VARIOUS GROUP LOADINGS NOTED ON THE SUBSTRUCTURE PLAN SHEETS REFER TO THE GROUP LOADS AS GIVEN IN THE AASHTO LRFD STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

NOTES

PRECAST CONCRETE BOX CULVERT SECTIONS SHALL BE DESIGNED BY THE CONTRACTOR AND CONFORM TO THE PLANS AND SPECIFICATIONS AND THE FOLLOWING:

1. THE PROPOSED PRECAST BOX CULVERT SECTIONS SHALL BE MANUFACTURED TO MATCH THE INSIDE AND OUTSIDE DIMENSIONS OF THE EXISTING BOX CULVERT.

2. SEE GENERAL NOTES FOR DESIGN CRITERIA.

3. EACH SECTION SHALL HAVE A MALE AND A FEMALE END WITH NOT LESS THAN 1 1/2 " CONCRETE OVERLAP. EACH JOINT SHALL BE PROVIDED WITH A PREPLACED NEOPRENE OR OTHER SUITABLE GASKET. JOINTS SHALL FIT TIGHT AND PROVIDE GOOD ALIGNMENT OF SECTIONS AND INSIDE SURFACES.

4. LIFTING HOOKS OR DEVICES ARE REQUIRED FOR LIFTING, HANDLING AND PLACING THE SECTIONS.

5. THREADED INSERTS FOR ATTACHING HEADWALL AND NOSING SHALL BE PRECAST.

6. SOME SECTIONS SHALL BE SUPPLIED WITH 3" DIAMETER HOLES FOR RECEIVING AND GROUTING CUT-OFF WALL DOWELS.

7. NON SHRINK GROUT AND THREADED INSERTS SHALL BE PAID FOR UNDER THE ITEM "PRECAST CONCRETE BOX CULVERT".

8. ALL CUT-OFF WALLS SHALL BE POURED ON UNDISTURBED SOIL OR ON GRAVEL FILL.

PROJECT:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN
DEPARTMENT OF PUBLIC WORKS

PREPARED BY:
Dewberry
Dewberry - Goodkind, Inc.
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SEAL:
Michael P. Sears, PE #24781(CT)

REVISION SCHEDULE:

NO.	DATE	ISSUED FOR

DATE: 02/10/2009
SCALE: AS NOTED
NORTH

NOT FOR CONSTRUCTION

DRAWING TITLE:
BAKER PARK OUTFALL STRUCTURE DETAILS

DRAWING NUMBER:
3.5

19 of 43

DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

217 WEBB ROAD
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wkassociates.net

DRAWING NAME:
BAKER PARK FLOOD CONTROL IMPROVEMENTS: PLANTING & HABITAT ENHANCEMENT PLAN

DRAWING NUMBER:
17 OF 42

NORTH

SCALE:
0' 75' 150' 300'

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: ***FEBRUARY 10, 2009***

PROPOSED MEADOW SEED MIXES

STORMWATER WETLAND MEADOW/MARSH: NEW ENGLAND WET MIX, AS PRODUCED BY NEW ENGLAND WETLAND PLANTS, INC (413 548 8000). APPLIED AT A RATE OF 1LB/2500 SQUARE FEET. WETMIX CONTAINS A WIDE VARIETY OF NATIVE SEEDS THAT ARE BEST SUITED TO MOIST DISTURBED GROUND AS FOUND IN MOST WET MEADOWS, SCRUB SHRUB, OR FORESTED WETLAND RESTORATION AREAS.

UPLAND MEADOW: NEW ENGLAND CONSERVATION/WILDLIFE MIX AS PRODUCED NEW ENGLAND WETLAND PLANTS, INC (413 548 8000). APPLIED AT A RATE OF 1 LB/1,250 SQUARE FEET. CONSERVATION/WILDLIFE MIX PROVIDES A PERMANENT COVER OF GRASSES, FORBS, WILDFLOWERS AND LEGUMES.

GENERAL NOTES

1. ALL EXISTING CONDITIONS INFORMATION FOR BAKER PARK TAKEN FROM A SURVEY PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES, P.C.; ENTITLED "TOPOGRAPHIC SURVEY"; AND DATED NOVEMBER 12, 2008.
2. MAPPING FOR THE AREAS OUTSIDE OF BAKER PARK WAS COMPILED FROM AERIAL TOPOGRAPHIC MAPS PREPARED BY GOLDEN AERIAL SURVEY'S., 141 MT. PLEASANT ROAD, PO BOX 747, NEWTOWN, CT 06470 AND SUPPLEMENTED BY OTHER MAPS ON FILE WITH THE TOWN OF DARIEN AND GROUND SURVEY BY WILLIAM W. SEYMOUR & ASSOCIATES, PC, 170 NOROTON AVENUE, DARIEN, CT 06820.
3. PROPOSED IMPROVEMENTS OTHER THAN PLANTINGS AND HABITAT ENHANCEMENT FEATURES ARE FOR REFERENCE ONLY. SEE PROJECT ENGINEERS' DRAWINGS, FOR EXACT LOCATION AND SPECIFICATIONS REGARDING SITE GRADING, THE CONSTRUCTION OF DAM, OUTLET CONTROL STRUCTURES AND OTHER SURFACE WATER DETENTION AND FLOW CONTROL STRUCTURES THAT ARE SHOWN ON THIS DRAWING.
4. THE INFORMATION GIVEN ON THESE PLANS WITH RESPECT TO THE LOCATION OF SUBSURFACE STRUCTURES AND UTILITIES INDICATES ONLY THAT THE STRUCTURES MAY EXIST AND NO RESPONSIBILITY IS ASSUMED BY THE TOWN OF DARIEN OR IT'S CONSULTANTS FOR THE ACCURACY OF THE LOCATIONS SHOWN. UTILITY INFORMATION IS NOT GUARANTEED COMPLETE OR ACCURATE.
5. EXISTING UTILITIES IN CONFLICT THROUGH OR ABOVE THE PROJECT PROPERTIES SHALL BE RELOCATED AS DIRECTED BY THE APPROPRIATE UTILITY COMPANY OR THE OWNER. THE CONTRACTOR SHALL EXCAVATE TEST PITS TO VERIFY THE LOCATION AND THE DEPTH OF UTILITIES WHERE CONFLICT MAY EXIST.
6. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED THREE DAYS PRIOR TO THE COMMENCEMENT OF EACH PHASE OF CONSTRUCTION.
7. ALL CONSTRUCTION SHALL MEET OR EXCEED THE TOWN OF DARIEN AND STATE OF CONNECTICUT STANDARDS AND SPECIFICATIONS.
8. ALL CONSTRUCTION SHALL BE INSPECTED BY A PROFESSIONAL ENGINEER OR REGISTERED LANDSCAPE ARCHITECT PRIOR TO BACK FILL AND AS THE WORK PROGRESSES.
9. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY. IT IS NOT FOR CONSTRUCTION PURPOSES.

LEGEND

EXISTING CONTOUR
EXISTING WETLAND TO REMAIN
EXISTING WETLAND TO BE ELIMINATED
EXISTING WETLAND TO BE DISTURBED AND RECREATED
PROJECT PROPERTY BOUNDARY
ADJACENT PROPERTY BOUNDARY
PROPOSED CONTOUR
EXISTING WALL TO REMAIN
EXISTING TREE CANOPY EDGE
PROPOSED TREE CANOPY EDGE
EXIST SANITARY LINE
EXISTING WATERCOURSE
EXISTING WATERCOURSE TO BE ELIMINATED
PROPOSED STORMWATER WETLAND MEADOW/ MARSH
PROPOSED UPLAND MEADOW

DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

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FAIRFIELD, CT 06825
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wkassociates.net

DRAWING NAME:
BAKER PARK FLOOD CONTROL IMPROVEMENTS: PLANTING & HABITAT ENHANCEMENT NOTES

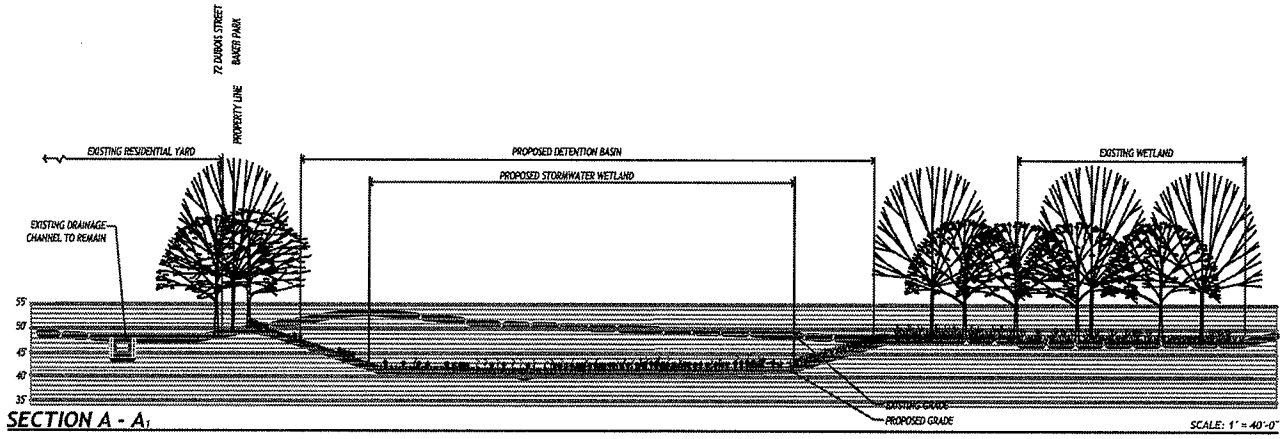
DRAWING NUMBER:
18 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

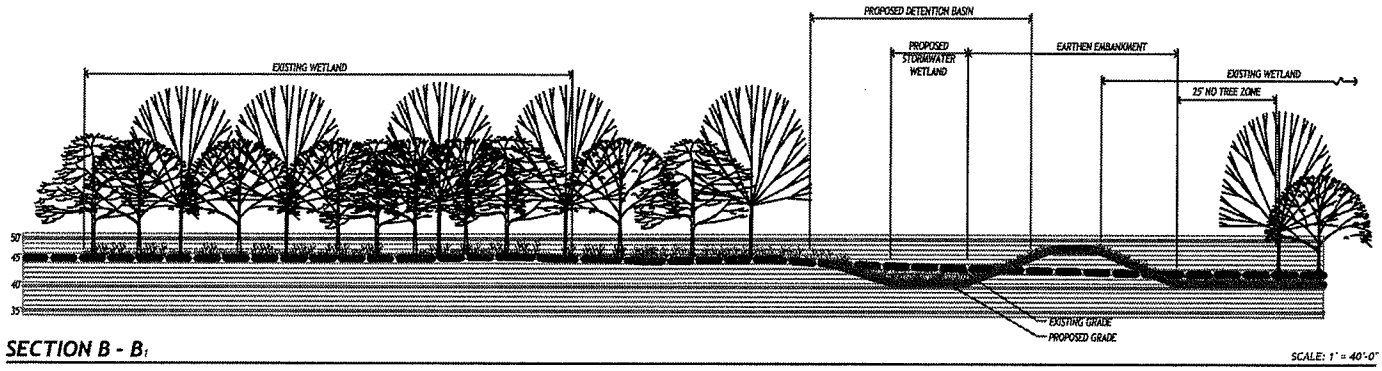
APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**



SECTION A - A_1



SECTION B - B_1

DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
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LAND USE PLANNING
LANDSCAPE ARCHITECTURE

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DRAWING NAME:
BAKER PARK FLOOD CONTROL IMPROVEMENTS: PLANTING & HABITAT ENHANCEMENT CROSS SECTIONS

DRAWING NUMBER:
19 OF 42

SCALE:

0' 20' 40' 80'

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: ***FEBRUARY 10, 2009***

DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

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FAIRFIELD, CT 06825
PHONE: 203 366 0588
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DRAWING NAME:
BAKER PARK FLOOD CONTROL IMPROVEMENTS: EROSION & SEDIMENT CONTROL PLAN

DRAWING NUMBER:
20 OF 42

NORTH

SCALE:
0' 75' 150' 300'

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: ***FEBRUARY 10, 2009***

GENERAL NOTES

1. ALL EXISTING CONDITIONS INFORMATION FOR BAKER PARK TAKEN FROM A SURVEY PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES, P.C.; ENTITLED "TOPOGRAPHIC SURVEY"; AND DATED NOVEMBER 12, 2008.
2. PROPOSED IMPROVEMENTS OTHER THAN PLANTINGS, GRADING AND HABITAT ENHANCEMENT FEATURES ARE FOR REFERENCE ONLY. SEE PROJECT ENGINEERS' DESIGN DETAILS, FOR EXACT LOCATION AND SPECIFICATIONS REGARDING THE CONSTRUCTION OF DAM, OUTLET CONTROL STRUCTURES AND OTHER SURFACE WATER DETENTION AND FLOW CONTROL STRUCTURES THAT ARE SHOWN ON THIS DRAWING.
3. EXISTING UNDERGROUND UTILITIES SHOWN ON THIS DRAWING MAY NOT BE ACCURATELY LOCATED AND MAY NOT INCLUDE ALL EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA.
4. PRIOR TO EXCAVATION, THE EXACT LOCATION OF EXISTING SUBSURFACE UTILITIES SHOULD BE CONFIRMED WITH 'CALL BEFORE YOU DIG' @ 1-8000-922-4455 AND/ OR THE RESPECTIVE UTILITY COMPANIES.
5. THE INFORMATION GIVEN ON THESE PLANS WITH RESPECT TO THE LOCATION OF SUBSURFACE STRUCTURES AND UTILITIES INDICATES ONLY THAT THE STRUCTURES MAY EXIST AND NO RESPONSIBILITY IS ASSUMED BY THE TOWN OF DARIEN OR IT'S CONSULTANTS FOR THE ACCURACY OF THE LOCATIONS SHOWN. UTILITY INFORMATION IS NOT GUARANTEED COMPLETE OR ACCURATE.
6. EXISTING UTILITIES IN CONFLICT THROUGH OR ABOVE THIS PARCEL SHALL BE RELOCATED AS DIRECTED BY THE APPROPRIATE UTILITY COMPANY OR THE OWNER. THE CONTRACTOR SHALL EXCAVATE TEST PITS TO VERIFY THE LOCATION AND THE DEPTH OF UTILITIES WHERE CONFLICT MAY EXIST.
7. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED THREE DAYS PRIOR TO THE COMMENCEMENT OF EACH PHASE OF CONSTRUCTION.
8. ALL CONSTRUCTION SHALL MEET OR EXCEED THE TOWN OF DARIEN AND STATE OF CONNECTICUT STANDARDS AND SPECIFICATIONS.
9. ALL CONSTRUCTION SHALL BE INSPECTED BY A PROFESSIONAL ENGINEER OR REGISTERED LANDSCAPE ARCHITECT PRIOR TO BACK FILL AND AS THE WORK PROGRESSES.
10. WORK WITHIN AND ADJACENT TO WETLANDS OR WATERCOURSES SHALL BE DONE DURING PERIODS OF LOW FLOW, WHENEVER POSSIBLE. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO SECURE THE WORK SITE BEFORE A MAJOR STORM EVENT, AS DEFINED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION WEATHER SERVICE. CONSTRUCTION STRUCTURES, MATERIALS AND EQUIPMENT SHALL BE ANCHORED OR RESTRAINED TO PREVENT DISPLACEMENT OR FLOTATION OR WILL BE REMOVED FROM THE WORK AREA BEFORE A MAJOR STORM EVENT.
11. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
12. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES, A CONSTRUCTION SEQUENCING PLAN AND A WATER HANDLING PLAN MUST BE SUBMITTED TO THE PROJECT WETLAND SCIENTIST IN WRITING FOR APPROVAL.
13. A WRITTEN PROPOSAL FOR SPECIFIC METHODS AND DEVICES TO BE USED FOR DEWATERING ACTIVITIES MUST BE SUBMITTED TO THE PROJECT WETLAND SCIENTIST FOR APPROVAL BEFORE THOSE OPERATIONS CAN BEGIN. THE WETLAND SCIENTIST MAY CEASE DEWATERING OPERATIONS IF EXCESSIVE TURBIDITY BECOMES A PROBLEM.
14. UNCONFINED WORK WITHIN STONY BROOK OR OTHER WATERWAY SHALL BE RESTRICTED TO THE TIME PERIOD OF JUNE 1 TO SEPTEMBER 30.
15. WORK WITHIN AND ADJACENT TO WETLANDS OR WATERCOURSES SHALL BE DONE DURING PERIODS OF LOW FLOW, WHENEVER POSSIBLE.
16. WITHIN 7 DAYS OF SETTING THE APPROXIMATE FINAL GRADE ON SLOPES, SEEDING WILL BE ACCOMPLISHED AS DETERMINED BY THE PROJECT WETLAND SCIENTIST. IF THE GRADING OPERATION WILL BE SUSPENDED FOR 30 OR MORE CONSECUTIVE DAYS, SEEDING OR SOME FORM OF SOIL STABILIZATION WILL BE REQUIRED.
17. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY. IT IS NOT FOR CONSTRUCTION PURPOSES.

LEGEND

- EXISTING CONTOUR
- EXISTING WETLAND TO REMAIN
- EXISTING WETLAND TO BE ELIMINATED
- CREATED STORMWATER WETLAND
- PROJECT PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- PROPOSED CONTOUR
- EXISTING WALL
- EXIST SANITARY LINE
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- TEMPORARY SILTATION BARRIER
- LIMIT OF DISTURBANCE & TEMPORARY 6' CHAINLINK FENCE
- EXISTING WATERCOURSE
- EXISTING WATERCOURSE TO BE ELIMINATED
- CONSTRUCTION ACCESSWAY
- TEMPORARY EROSION CONTROL MATTING

DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

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PHONE: 203 366 0588
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wkassociates.net

DRAWING NAME:
BAKER PARK FLOOD CONTROL IMPROVEMENTS: EROSION & SEDIMENT CONTROL NOTES & LEGEND

DRAWING NUMBER:
21 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

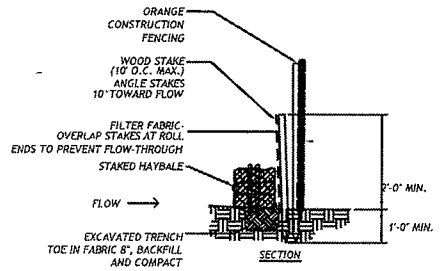
DATE: **FEBRUARY 10, 2009**

CONSTRUCTION SEQUENCE

1) INSTALL PERIMETER SECURITY FENCE AND SILTATION BARRIER AS SHOWN ON PLAN.
2) OBTAIN TOWN APPROVAL OF INSTALLATED SEDIMENT AND EROSION CONTROLS.
3) MARK AND CUT TREES TO BE REMOVED. LEAVE ROOT SYSTEMS IN PLACE.
4) CONSTRUCT DIVERSION STRUCTURE.
   a) CONVEY WATER FROM WATERCOURSE AWAY FROM CONSTRUCTION AREA AND TO DOWNSTREAM EXISTING WATERCOURSE. CONTINUE DIVERSION AS NEEDED UNTIL CONSTRUCTION AREA PERMANENTLY STABILIZED.
   b) GRUB PROJECT AREA NECESSARY TO CONSTRUCT DIVERSION AND CONSTRUCTION ACCESS.
   c) STRIP TOPSOIL AND STOCKPILE. PROTECT WITH APPROPRIATE SEDIMENTATION CONTROL MEASURES.
   d) CONSTRUCT DIVERSION STRUCTURE.
   e) PLACE TOPSOIL AND THEN FINISH GRADE THE SOIL SURFACE.
   f) INSTALL VEGETATION.
   g) ALLOW SOWN SEED TO GERMINATE.
   h) BLOCK EASTERN OPENING IN DIVERSION WITH SAND BAGS OR SIMILAR MEASURES TO A HEIGHT OF ELEVATION 48 TO PREVENT STORMWATER FLOWS INTO DETENTION BASIN WORK AREA.
   i) RESTORE BASEFLOW STREAM WATER TO EXISTING CHANNEL.
5) CONVEY WATER FROM ONSITE WETLAND AWAY FROM DETENTION BASIN CONSTRUCTION AREA AND TO DOWNSTREAM WETLAND. CONTINUE DIVERSION AS NEEDED UNTIL CONSTRUCTION AREA PERMANENTLY STABILIZED.
6) CONSTRUCT EARTHEN EMBANKMENT AND OUTFALL CONTROL STRUCTURE.
   a) GRUB/REMOVE UNDERLYING VEGETATION AND VEGETATION FROM BORROW AREAS WITHIN THE LIMIT OF DISTURBANCE. LIMIT GRUBBING TO EMBANKMENT AND BORROW AREA.
   b) STRIP TOPSOIL AND STOCKPILE. PROTECT WITH APPROPRIATE SEDIMENTATION CONTROL MEASURES.
   c) CONSTRUCT EMBANKMENT.
   d) STABILIZE EMBANKMENT.
7) GRUB REMAINING PORTION OF DETENTION BASIN CONSTRUCTION AREA.
8) STRIP TOPSOIL AND STOCKPILE. PROTECT WITH APPROPRIATE SEDIMENTATION CONTROL MEASURES.
9) EXCAVATE AND GRADE DETENTION BASIN AREA.
10) PLACE TOPSOIL AND THEN FINISH GRADE THE SOIL SURFACE.
11) INSTALL VEGETATION AND OTHER HABITAT FEATURES.
12) ALLOW SOWN SEED TO GERMINATE. FOLLOWING SITE STABILIZATION, REMOVE SEDIMENTATION CONTROLS AND UNBLOCK DIVERSION STRUCTURE TO ALLOW STORMWATER FLOWS FROM STREAM TO ENTER THE DETENTION BASIN.
13) MAINTAIN PERIMETER SECURITY FENCING AS NEEDED TO PROTECT INSTALLED PLANTINGS AND OTHER IMPROVEMENTS FROM HUMAN OR WILDLIFE DAMAGE.

SILTATION BARRIER DETAIL

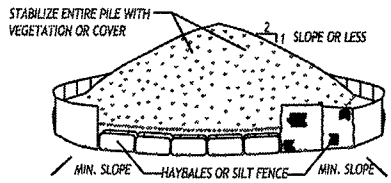
NOT TO SCALE



1. INSPECT BARRIER AFTER EACH STORM EVENTAND DAILY DURING PROLONGED RAINFALL.
2. REMOVE SEDIMENT WHEN IT REACHES APPROXIMATELY ONE-HALF THE BARRIER HEIGHT.
3. HAYBALES MUST BE TIGHTLY ABUTTING WITH NO GAPS AND STAKED IN PLACE.

TOPSOIL STOCKPILE DETAIL

NOT TO SCALE

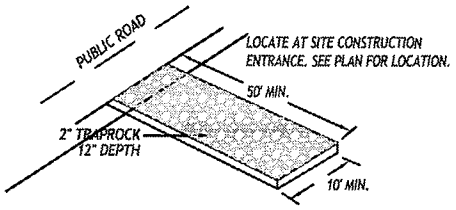


INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCK PILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR HAY BALES, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE (THIS SHEET) FOR INSTALLATION OF SILT FENCE.

ANTI- TRACKING PAD DETAIL

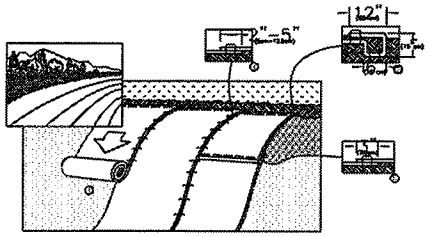
NOT TO SCALE



1. EFFECTED PORTIONS OF OFFSITE ROADS MUST BE KEPT CLEAN. ALL SEDIMENT DROPPED OR TRACKED ONTO ROADWAYS IS TO BE REMOVED IMMEDIATELY.

TEMPORARY EROSION CONTROL MATTING

NOT TO SCALE



1. MAT SHALL CONSIST OF ULTRAVIOLET LIGHT RESISTANT POLYMER OR SYNTHETIC FIBERS MECHANICALLY, STRUCTURALLY, AND/OR CHEMICALLY BOUND TOGETHER FOR A CONTINUOS MATRIX OF CONSISTENT THICKNESS.
2. MAT SHALL CONTAIN NO CONTAMINANT THAT POLLUTE THE AIR OR WATER OF THE STATE WHEN PROPERLY INSTALLED AND BE FREE OF ANY SUBSTANCE TOXIC TO PLANT GROWTH AND UNPROTECTED HUMAN SKIN OR WHICH INTERFERES WITH SEED GERMINATION.

DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

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DRAWING NAME:
BAKER PARK TRIBUTARY FLOOD CONTROL IMPROVEMENTS: EROSION & SEDIMENT CONTROL DETAILS & SPECS.

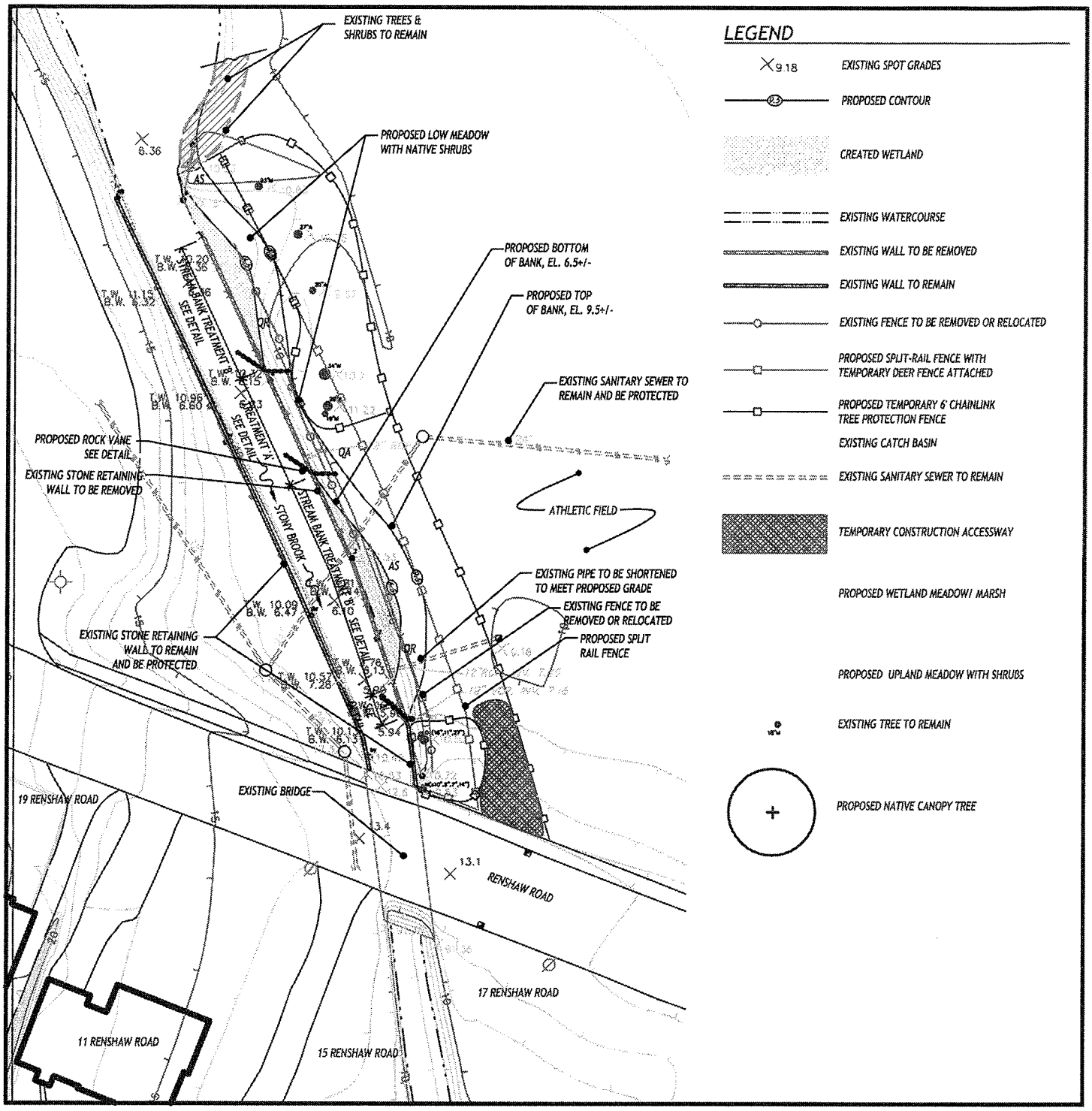
DRAWING NUMBER:
22 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**



DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

217 WEBB ROAD
FAIRFIELD, CT 06825
PHONE: 203 366 0588
FAX: 203 366 0067
wkassociates.net

DRAWING NAME:
STONY BROOK STREAM CHANNEL IMPROVEMENTS: SITE PLAN

DRAWING NUMBER:
23 OF 42

NORTH

SCALE:
0' 25' 50' 100'

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: ***FEBRUARY 10, 2009***

PLANT LIST

SYM.	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	ROOT	FOOD	COVER	NESTING
TREES								
AS	2	ACER SACCHARUM	SUGAR MAPLE	10'-12' HT.	B&B	FS,P	•	•
QA	1	QUERCUS ALBA	WHITE OAK	10'-12' HT.	B&B	FS,P	•	•
QR	2	QUERCUS RUBRA	RED OAK	10'-12' HT.	B&B	FS,P	•	•
TOTAL:	5							
SHRUBS								
CA	60	CLETHRA ALNIFOLIA	SWEETPEPPERBUSH	18"-24"	CONT.	PWF,F	•	•
CM	65	CORNUS AMOMUM	SILKY DOGWOOD	18"-24"	CONT.	FF,P	•	•
CR	55	CORNUS RACEMOSA	GRAY DOGWOOD	18"-24"	CONT.	FF,P	•	•
MP	60	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	18"-24"	CONT.	PWF,F	•	•
SC	55	SAMBUCUS CANADENSIS	ELDERBERRY	18"-24"	CONT.	FF,P	•	•
VD	65	VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	18"-24"	CONT.	FF,P	•	•
TOTAL:	360							
HERBACEOUS EMERGENTS								
NL	64	NUPHAR LUTEUM	SPATTER DUCK	2" PLUG	2" PLUG	FF,P	•	•
PV	67	PELTANDRA VIRGINICA	ARROW ARUM	2" PLUG	2" PLUG	FF,P	•	•
PC	64	PONTEDERIA CORDATA	PRICKLE WEED	2" PLUG	2" PLUG	EBF,P	•	•
SL	67	SAGGITARIA LATIFOLIA	ARROW HEAD	2" PLUG	2" PLUG	EBF,P	•	•
SC	64	SCIRPUS PUNGENS	COMMON THREE-SQUARE	2" PLUG	2" PLUG	EBF,P	•	•
SV	59	SCIRPUS VALIDAS	SOFT-STEM BULRUSH	2" PLUG	2" PLUG	FF,P	•	•
SE	65	SPARGANIUM EURYCARPUM	GIANT BURREED	2" PLUG	2" PLUG	EBF,P	•	•
TOTAL:	450							

SEED MIXES

UPLAND MEADOW: "NO MOW MIX" AS PRODUCED BY PRAIRIE NURSERY (WWW.PRAIRIENURSERY.COM OR 1-800-476-9453) "NO MOW" SEED MIX CONSISTS OF LOW MAINTENANCE, NO WATERING, NO FERTILIZING COOL SEASON GRASSES (PRIMARILY FESTUCA RUBRA AND FESTUCA OVINA).

WILDLIFE BENEFIT KEY

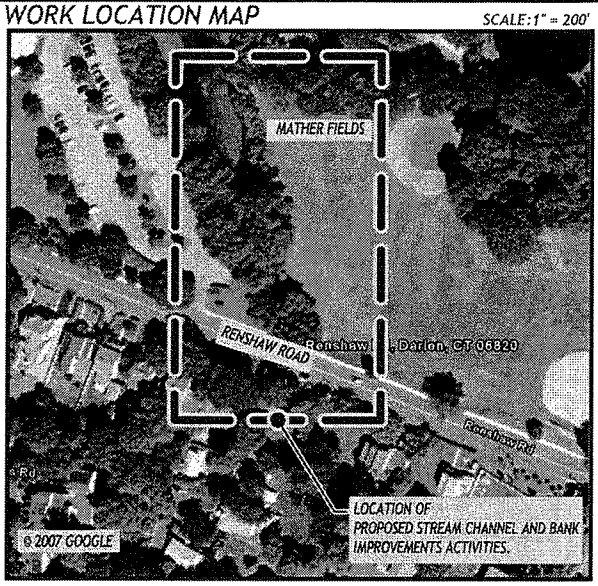
FOOD TYPE: S=SEED, P=PLANT PART, N=NECTAR, R=ROOTSTOCK

FOOD AVAILABILITY: ESF=EARLY SUMMER FRUITS, FF=FALL FRUITS, PWF=PERSISTENT WINTER FRUITS, SSS=SPRING/SUMMER SEEDS, FS=FALL SEEDS

• INDICATES SIGNIFICANT CONTRIBUTION

WORK LOCATION MAP

SCALE: 1" = 200'



GENERAL NOTES

1. UNLESS OTHERWISE NOTED EXISTING STRUCTURES AND PAVEMENTS TAKEN FROM A SURVEY PREPARED BY JAMES W. DEWALL & COMPANY; ENTITLED "TOPOGRAPHIC MAP OF DARIEN, CT"; AND DATED JULY 20, 2008. EXISTING TREES, FENCE, WALLS, SANITARY SEWER LINE, WETLAND BOUNDARY AND SPOT GRADE ELEVATIONS PROVIDED BY DEWBERRY, INC.
2. WORK WITHIN AND ADJACENT TO WETLANDS OR WATERCOURSES SHALL BE DONE DURING PERIODS OF LOW FLOW, WHENEVER POSSIBLE. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO SECURE THE WORK SITE BEFORE A MAJOR STORM EVENT, AS DEFINED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION WEATHER SERVICE. CONSTRUCTION STRUCTURES, MATERIALS AND EQUIPMENT SHALL BE ANCHORED OR RESTRAINED TO PREVENT DISPLACEMENT OR FLOTATION OR WILL BE REMOVED FROM THE WORK AREA (TO AREAS LOCATED ABOVE ELEVATION 49) BEFORE A MAJOR STORM EVENT.
3. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY. IT IS NOT FOR CONSTRUCTION PURPOSES.
4. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
5. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES, A CONSTRUCTION SEQUENCING PLAN AND A WATER HANDLING PLAN MUST BE SUBMITTED TO THE PROJECT WETLAND SCIENTIST IN WRITING FOR APPROVAL.
6. A WRITTEN PROPOSAL FOR SPECIFIC METHODS AND DEVICES TO BE USED FOR DEWATERING ACTIVITIES MUST BE SUBMITTED TO THE PROJECT WETLAND SCIENTIST FOR APPROVAL BEFORE THOSE OPERATIONS CAN BEGIN. THE WETLAND SCIENTIST MAY CEASE DEWATERING OPERATIONS IF EXCESSIVE TURBIDITY BECOMES A PROBLEM.
7. UNCONFINED WORK WITHIN STONY BROOK OR OTHER WATERWAY SHALL BE RESTRICTED TO THE TIME PERIOD OF JUNE 1 TO SEPTEMBER 30.
8. WORK WITHIN AND ADJACENT TO WETLANDS OR WATERCOURSES SHALL BE DONE DURING PERIODS OF LOW FLOW, WHENEVER POSSIBLE.
9. WITHIN 7 DAYS OF SETTING THE APPROXIMATE FINAL GRADE ON SLOPES, SEEDING WILL BE ACCOMPLISHED AS DETERMINED BY THE PROJECT WETLAND SCIENTIST. IF THE GRADING OPERATION WILL BE SUSPENDED FOR 30 OR MORE CONSECUTIVE DAYS, SEEDING OR SOME FORM OF SOIL STABILIZATION WILL BE REQUIRED.

PROJECT SEQUENCE

1. INSTALL TEMPORARY TREE PROTECTION FENCE AS SHOWN ON PLAN.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE ANTI TRACKING PAD.
3. INSTALL TEMPORARY COFFERDAM.
4. OBTAIN TOWN APPROVAL OF INSTALLED SEDIMENT AND EROSION CONTROLS.
5. BEGINNING AT THE NORTHERN LIMIT OF THE PROJECT WORK AREA, REMOVE EXISTING STONE WALL AND INITIATE CONSTRUCTION OF ROCK VANES, BOULDER REVETMENTS AND FLOODPLAIN WETLANDS AND GRADING OF STREAM BANKS.
6. GRADE PROPOSED WETLAND CREATION AREAS AND PROPOSED VEGETATED STREAM BANK.
7. PLACE TOPSOIL AND THEN FINISH GRADE THE SOIL SURFACE.
8. INSTALL VEGETATION AND OTHER HABITAT FEATURES.
9. REMOVE TEMPORARY COFFERDAM.
10. INSTALL WOODEN SPLIT RAIL FENCE AND TEMPORARY DEER FENCE.
11. REMOVE CONSTRUCTION ACCESSWAY AND VEGETATE AREA.
12. REMOVE TEMPORARY TREE PROTECTION FENCE.
13. MAINTAIN TEMPORARY DEER FENCING AS NEEDED TO PROTECT INSTALLED PLANTINGS AND OTHER IMPROVEMENTS FROM HUMAN OR WILDLIFE DAMAGE.

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DRAWING NAME:
STONY BROOK STREAM CHANNEL IMPROVEMENTS: NOTES

DRAWING NUMBER:
24 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**

HABITAT MANAGEMENT SPECIFICATIONS

1) STREAM CHANNEL AND BANK IMPROVEMENTS OBJECTIVESS:
   a) EXPANDING AND DIVERSIFYING HABITAT TYPES THROUGH THE REMOVAL OF THE EXISTING STONE WALL ALONG THE STREAM BANK AND THE ESTABLISHMENT OF NATURALLY VEGETATED FLOODPLAIN WETLAND AREASS AND UPLAND SLOPING BANKS.
   b) INCREASE THE ABUNDANCE AND DIVERSITY OF WETLAND AND WATERCOURSE FLORA. THIS WILL BE ACHIEVED THROUGH THE COMPLETION OF ITEM 1.A NOTED ABOVE AND BY INSTALLING AND MAINTAINING A DIVERSITY OF TREES, SHRUBS AND HERBS IN EACH HABITAT TYPE.
   c) INCREASE THE ABUNDANCE AND DIVERSITY OF WETLAND AND WATERCOURSE FAUNA. THIS WILL BE ACHIEVED THROUGH THE COMPLETION OF ITEMS 1.A AND 1.B. NOTED ABOVE AND THROUGH THE INSTALLATION OF ROCK VANES THAT WILL CREATE A DIVERSITY OF INSTREAM HABITAT BY FORMING POOLS AND BY NARROWING AND DEEPENING THE BASEFLOW CHANNEL AND THROUGH THE ESTABLISHMENT OF SHADE TREES THAT WILL PROVIDE ADDITIONAL SHADING OF THE STREAM.
   d) INCREASE THE STORM AND FLOODWATER STORAGE OF THE AREA. THIS WILL BE ACHIEVED THROUGH REMOVAL OF THE EXISTING STONE WALL, GRADING BACK THE SLOPE AND CREATING SMALL FLOODPLAING WETLAND AREAS.
   e) IMPROVE DOWN STREAM WATER QUALITY BY REMOVING LAWN THAT DIRECTLY BORDERS THE STONY BROOK AND REPLACING IT WITH A NATURALIZED BUFFER.
   f) CONTROL INVASIVE PLANT SPECIES THROUGH THE DENSE PLANTING AND MAINTENANCE OF NATIVE VEGETATION, LONG-TERM ESTABLISHMENT OF SHADE YIA CANOPY TREES, AND MONITORING AND MAINTENANCE ACTIVITIES FOLLOWING PLANTING.

2) HABITAT ENHANCEMENT SUCCESS STANDARDS
   a) THE HABITAT ENHANCEMENT ACTIVITIES WILL BE CONSIDERED A SUCCESS IF THE FOLLOWING STANDARDS ARE MET AT THE END OF THE PROJECT MONITORING PERIOD:
      i) PROPOSED WETLAND HYDROLOGIC OBJECTIVES ARE MET.
      ii) PROPOSED VEGETATION DIVERSITY AND DENSITY OBJECTIVES ARE MET.
      iii) EMERGENT MARSH HABITATS SHALL HAVE AT LEAST 80 PERCENT AERIAL COVER. THE AERIAL COVERAGE EXCLUDES INVASIVE PLANTS.
      iv) COMMON REED, PURPLE LOOSESTRIFE, RUSSIAN AND AUTUMN OLIVE, BUCKTHORN, JAPANESE KNOTWEED AND/OR MULTIFLORA ROSE PLANTS WITHIN THE HABITAT ENHANCEMENT AREA ARE BEING CONTROLLED.
      v) ALL SLOPES, SOILS, SUBSTRATES, AND CONSTRUCTED FEATURES WITHIN AND ADJACENT TO THE HABITAT ENHANCEMENT AREA ARE STABLE.

3) WORK DESCRIPTION
   PROVIDE ALL MEANS AND MATERIALS NECESSARY FOR SUPPLYING, INSTALLING AND MAINTAINING THE TYPE AND SIZE OF THE PLANT MATERIAL AND OTHER IMPROVEMENTS INDICATED IN THE SITE PLAN AND FOR ACHIEVING THE HABITAT ENHANCEMENT OBJECTIVES AND SUCCESS STANDARDS.

4) QUALITY ASSURANCE
   a) A WETLAND SCIENTIST SHALL BE ONSITE TO MONITOR CONSTRUCTION, MONITORING AND MAINTENANCE OF THE HABITAT ENHANCEMENT ACTIVITIES TO ENSURE COMPLIANCE WITH THE DESIGN AND SPECIFICATIONS AND TO MAKE ADJUSTMENTS WHEN APPROPRIATE TO MEET ENHANCEMENT OBJECTIVES.
   b) ALL WORK SHALL BE PERFORMED BY PERSONNEL WITH WETLAND AND STREAM BANK HABITAT RESTORATION AND ENHANCEMENT PROJECT EXPERIENCE, UNDER THE DIRECTION OF A SKILLED FOREMAN WITH A MINIMUM THREE YEARS EXPERIENCE.
   c) THE PLANNING, ACCOMPLISHING AND MAINTAINING OF THE HABITAT ENHANCEMENT ACTIVITIES ARE THE RESPONSIBILITY OF THE TOWN OF DARIEN.
   d) ALL HEAVY EQUIPMENT STORAGE, REFUELING AND MINOR MAINTENANCE IS TO TAKE PLACE OUTSIDE OF THE REGULATED WETLANDS AND WATERCOURSES
   e) DISPOSE OF EXCESS MATERIAL AND DEBRIS RESULTING FROM THE PROPOSED HABITAT ENHANCEMENT WORK OFF-SITE. LEAVE WORK AREA CLEAN AND NEAT UPON COMPLETION OF THE WORK. REPAIR ANY DAMAGED DONE TO THE EXISTING SITE IMPROVEMENT AS A RESULT OF THE WORK.

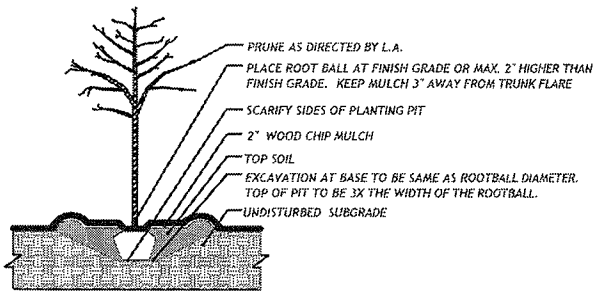
5) PRODUCT AND EXECUTION DATA
   a) SOIL
      i) TOPSOIL SHALL CONSIST OF A MIXTURE OF EQUAL VOLUMES OF ORGANIC AND MINERAL MATERIALS. WELL DECOMPOSED LEAF COMPOST OR EQUAL (NOT INCLUDING PEAT) SHALL BE USED FOR THE ORGANIC MATERIAL WHICH SHALL BE FREE OF WEED SEEDS AND PHYSICAL (E.G., PLASTIC) AND CHEMICAL CONTAMINANTS. THE ORGANIC MATTER CONTENT SHOULD BE 15 TO 25 PERCENT BY DRY WEIGHT.
      ii) PROVIDE DOCUMENTATION REGARDING THE SOURCE OF TOPSOIL AND THE POTENTIAL FOR THE PRESENCE OF INVASIVE SPECIES SEEDS.
      iii) TESTING OF THE TOPSOIL BY AN ACCEPTABLE LABORATORY PRIOR TO PLANTING WILL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR. APPLICATIONS OF ORGANIC SOIL AMENDMENTS MAY BE REQUIRED IN ACCORDANCE WITH THE "STANDARDS FOR ORGANIC LAND CARE" (SOLC) AS PUBLISHED BY THE NORTHEAST ORGANIC FARMING ASSOCIATION TO ACHIEVE DESIRED SOIL HEALTH AND FERTILITY
      iv) SPREAD TOPSOIL TO A DEPTH REQUIRED TO ACHIEVE THE MICROTOPOGRAPHIC VARIATION AND TO MEET THICKNESS, GRADES, AND ELEVATIONS SHOWN ON THE PLAN AND DETAILS.
   b) VEGETATION
      i) GENERAL
         (1) ALL VEGETATION USED FOR PERMANENT PLANTINGS SHALL BE GROWN AND PROPAGATED FROM NATIVE PLANTS GROWING NATURALLY WITHIN 200 MILES OF THE SITE.
         (2) NON NATIVE, NON INVASIVE ANNUALS MAY BE USED FOR TEMPORARY PLANTINGS IF APPROVED BY THE OWNER'S REPRESENTATIVE.
         (3) PROVIDE A CERTIFICATE OR INVOICE FROM THE PLANT MATERIAL SUPPLIERS INDICATING THE PLANT SOURCE, THE BOTANICAL NAME, QUANTITY, AND SIZE OF THE PLANTS DELIVERED TO THE PROJECT SITE. IN ADDITION TO PROVIDING ALL PLANT LABELS.
         (4) ALL PLANT MATERIALS SHALL BE INSPECTED FOR DEFECTS, DISEASE, DAMAGE OR INSECTS BEFORE PLANTING. ANY SUBSTANDARD PLANTS SHALL BE RETURNED TO, AND REPLACED BY THE CONTRACTOR. ACCEPTABLE PLANTINGS ARE TO BE PLANTED PER THE SPECIFICATIONS OF THE PLANTING PLAN.
         (5) ALL PLANT MATERIALS ARE SUBJECT TO REPLACEMENT BY SUITABLE ALTERNATIVES PER AGREEMENT BETWEEN THE PROPERTY OWNER, NURSERY CONTRACTOR, AND APPROPRIATE REGULATORY AGENCIES (E.G., CORPS).
         (6) ALL PLANT MATERIAL LOCATIONS ARE SUBJECT TO FIELD ADJUSTMENTS IN RESPONSE TO SITE CONDITIONS. THESES ADJUSTEMENTS SHALL BE THE DISCRETION OF THE PROPERTY OWNER. UNDER THE DIRECTION OF A QUALIFIED WETLAND SCIENTIST, UP TO 50 PERCENT OF THE PLANTS MAY BE LOCATED DIFFERENTLY THAN SHOWN ON THE DRAWINGS.
         (7) SIZES SHALL CONFORM TO MEASUREMENTS SPECIFIED IN THE PLANT LIST. USE PLANTS LARGER THAN SPECIFIED IF APPROVED BY THE OWNER'S REPRESENTATIVE, AND CAUSES NO INCREASE TO THE CONTRACT PRICE.
         (8) MAKE ALL NESSECARY MEASUREMENTS TO PROPERLY LOCATE PLANTS AS SHOWN ON THE DRAWING. LOCATIONS OF PLANTS SHALL BE VERIFIED BY PROPERTY OWNER PRIOR TO INSTALLATION. ANY PLANTS INSTALLED PRIOR TO THE APPROVAL OF THE PROPERTY OWNER SHALL BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER.
         (9) PRIOR TO PLANTING, VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES. EXERCISE CARE WHEN DIGGING IN THESE AREAS. ASSUME RESPONSIBILITY FOR ANY DAMAGE AND REPLACEMENT OR REPAIR AT THE CONTRACTOR'S EXPENSE.
      ii) TREES AND SHRUBS
         (1) PLACE THE PLANT IN THE CENTER OF THE PIT OR SPACED IN BEDS AS INDICATED ON THE DRAWINGS. SET THE PLANT PLUMB AND ADJUST ITS HEIGHT TO ACHIEVE THE ELEVATION SHOWN ON THE DRAWINGS BY PLACING PREPARED SOIL BENEATH THE ROOTBALL. BURLAP, ROPE, WIRE BASKETS OR OTHER MATERIAL SHALL BE CUT AND REMOVED FROM THE TOPS OF THE ROOTBALL AND NOT LEFT IN THE PLANTING PIT. BACKFILL AROUND THE ROOTBALL WITH PREPARED PLANTING SOIL. UNIFORMLY COMPACT AND WATER THE PREPARED PLANTING SOIL TO FILL VOIDS AND TO FIRMLY SECURE ROOTBALL.
         (2) FORM A "SAUCER" AT THE SURFACE OF THE PLANTING PIT OR BED WITH TOPSOIL. SHAPE THE SAUCER TO MATCH THE DIMENSIONS INDICATED ON THE DRAWINGS. BLEND THE PERIMETER OF THE SAUCERS AND BEDS TO FORM A SMOOTH AND UNIFORM TRANSITION TO FINISH GRADE.
         (3) IMMEDIATELY AFTER PLANTING, FIRMLY INSTALL STAKES AS INDICATED ON THE DRAWINGS. ATTACH GUY WIRES, TURNBUCKLES AND FRICTION GUARDS TO TREE AND STAKES. TIE WIRES TO SECURELY ANCHOR TREE.
         (4) COVER ALL TREE PITS AND PLANTING BEDS WITH THE SPECIFIED MULCH DEPTH, DIMENSIONS, AND AREAS INDICATED ON THE DRAWING.
         (5) PRUNE IN ACCORDANCE WITH AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS TO REMOVE DEAD AND DISEASED PORTION OF THE PLANT.
         (6) ALL WIRE FLAGS USED TO IDENTIFY PLANT LOCATIONS SHALL BE REMOVED AFTER PLANT INTRODUCTION AND CONFIRMATION BY THE PROPERTY OWNER.
      iii) HERBS
         (1) PLUGS
            (a) BEFORE PLANTING, FIELD STAKE HIGH MARSH AND LOW MARSH PLANTING ZONES FOR REVIEW BY THE PROJECT WETLAND SCIENTIST.
         (2) SEEDING
            (a) USE PURE LIVE SEED ONLY
            (b) SEED WHEN SOILS ARE NOT INUNDATED. DO NOT ALLOW INUNDATION TO OCCUR UNTIL THE HEIGHT OF SEEDED PLANTS EXCEED INUNDATION DEPTHS.
            (c) SURFACE-SOW SEED AND THEN PUSH SEED INTO CONTACT WITH THE TOPSOIL.
            (d) APPLY SEED AT RATES AS SPECIFICED ON THE PLANT LIST.
            (e) SURFACE PREPARATION. LOOSEN SUBGRADE OF THE PLANTING BED AREAS TO A MINIMUM DEPTH OF 3".
            (f) IMMEDIATELY FOLLOWING SEEDING, MULCH THE SEEDED SURFACE WITH STERILE STRAW AT A RATE OF 1.5 TO 2 TONS/ACRE. SPREAD MULCH BY HAND OR DISK HARROW SET STRAIGHT.
            (g) LIMIT OF SEEDING IS SUBJECT TO FIELD ADJUSTMENT IN RESPONSE TO SITE CONDITIONS. THESE ADJUSTMENTS SHALL BE AT THE DISCRETION OF THE PROJECT WETLAND SCIENTIST.

6) MAINTENANCE
   a) MAINTENANCE IS TO BEGIN IMMEDIATELY AFTER PLANTING HAS BEEN COMPLETED.
   b) THE MAINTENANCE PERIOD SHALL BE EXTENDED AT NO ADDITIONAL COST TO THE PROPERTY OWNER UNTIL PREVIOUS PUNCH LIST ITEMS HAVE BEEN CORRECTED, AT WHICH TIME THE FINAL INSPECTION WILL BE MADE.
   c) ALL PLANT MATERIAL SHALL BE PRUNED, WEEDED, AND SOIL AMENDMENTS ADDED AS REQUIRED TO KEEP PLANT MATERIAL IN A HEALTHY GROWING CONDITION.
   d) PROTECT ALL PLANTED AREAS AGAINST DAMAGE, INCLUDING EROSION, WILDLIFE, AND TRESPASSING BY PROVIDING AND MAINTAINING PROPER SAFEGUARDS.
   e) ALL PLANT STOCK SHALL BE WATERED UPON COMPLETION OF PLANTING. ARRANGEMENTS SHALL BE MADE TO PROVIDE ADEQUATE IRRIGATION TO INTRODUCED PLANTING STOCK AND SEEDED AREAS UNTIL PLANTS ARE FIRMLY ESTABLISHED. IRRIGATION SHALL NOT TO BE USED TO PROVIDE WETLAND HYDROLOGY. IRRIGATION SHALL BE DISCONTINUED AND MEASURES SHALL BE REMOVED NO LATER THAN THE END OF THE SECOND GROWING SEASON UNLESS SPECIFIED OTHERWISE.
   f) RESET SETTLED PLANTS TO PROPER GRADE AND POSITION. ADJUST OR REPLACE STAKES, GUYING MATERIALS, TO SECURELY ANCHOR AND PROTECT.
   g) AT THE END OF THE MAINTENANCE PERIOD, ALL PLANT MATERIAL SHALL BE IN A HEALTHY GROWING CONDITION AS RELATED TO CONDITIONS WITHIN THE CONTROL OF THE CONTRACTOR
   h) CONTROL INVASIVE SPECIES FOR A MINIMUM OF FIVE YEARS FOLLOWING THE CONSTRUCTION PHASE OF THE PROJECT.
      i) INVASIVE SPECIES ARE THOSE SPECIES IDENTIFIED IN TABLE 4 OF THE "NEW ENGLAND DISTRICT MITIGATION PLAN CHECKLIST" DATED JANUARY 12, 2007 AND PUBLISHED BY THE US ARMY CORP OF ENGINEERS.
      ii) CONDUCT THE CONTROL ACTIVITIES UNDER THE DIRECTION OF A QUALIFIED WETLAND SCIENTIST AT LEAST TWICE EACH GROWING SEASON - IN LATE SPRING/EARLY SUMMER AND AGAIN IN LATE SUMMER/EARLY FALL. MONITORING AND MAINTENANCE WILL INCLUDE:
         (1) DETERMINE THE PRESENCE AND ABUNDANCE OF INVASIVE PLANTS.
         (2) FIELD MARK (VIA FLAGGING OR OTHER MEANS) DESIRABLE VEGETATION TO REMAIN AND INVASIVE (UNDESIRABLE) PLANTS TO BE CONTROLLED.
         (3) CONTROL INVASIVES PLANTS VIA PHYSICAL OR CHEMICAL METHODS. THE METHOD TYPE WILL BE DETERMINED BY THE WETLAND SCIENTIST BASED ON THE TYPE AND ABUNDANCE OF INVASIVE PLANTS AND THE TYPE AND ABUNDANCE OF ADJACENT DESIRABLE PLANTS. THE PLANT CONSERVATION ALLIANCE'S ALIEN PLANT WORKING GROUP DATABASE (HTTP://WWW.NPS.GOV/PLANTS/ALIEN/FACTMAIN.HTM) REGARDING THE CONTROL OF INVASIVE PLANT SPECIES WILL BE CONSULTED TO ASSIST WITH SPECIFYING AN APPROPRIATE METHODOLOGY. COMPLETE PHYSICAL PLANT CONTROL ACTIVITIES BY HAND OR VIA HAND TOOLS (E.G., WEED WRENCH, BRUSH CUTTER). CHEMICAL METHODS WILL PRIMARILY INCLUDE THE USE OF GLYPHOSPHATE-BASED HERBICIDES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE LAWS.

7) MONITORING AND REPORTING:
   a) MONITOR THE CONDITIONS OF THE HABITAT ENHANCEMENT IMPROVEMENTS FOR FIVE YEARS. THE FIRST YEAR OF MONITORING SHALL BEGIN FOLLOWING THE FIRST FULL GROWING SEASON FOLLOWING CONSTRUCTION COMPLETION AND PLANTING.
   b) CONDUCT MONITORING ACTIVITIES AT LEAST TWICE EACH GROWING SEASON - IN LATE SPRING/EARLY SUMMER AND AGAIN IN LATE SUMMER/EARLY FALL.
   c) THE PROJECT WETLAND SCIENTIST SHALL PREPARE AND SUBMIT AN ANNUAL MONITORING REPORT TO THE REGULATORY AGENCIES BY DECEMBER 15TH OF EACH MONITORING YEAR. A SELF-CERTIFICATION FORM WILL BE COMPLETED AND SIGNED AS A TRANSMITTAL COVERSHEET FOR EACH ANNUAL MONITORING REPORT.
   d) THE MONITORING REPORTS SHALL BE CONCISE (MAXIMUM 10 PAGES) AND EFFECTIVELY PROVIDE THE INFORMATION NECESSARY TO ASSESS THE STATUS OF THE COMPENSATORY MITIGATION PROJECT. THE REPORTS SHALL INCLUDE:
      i) PROJECT OVERVIEW
      ii) CONCLUSIONS REGARDING WHETHER THE HABITAT ENHANCEMENT PLAN IS SUCCESSFULLY ACHIEVING THE ENHANCEMENT OBJECTIVES. IN ADDITION, , INFORMATION REGARDING THE DISCOVERY OF POTENTIAL INVASIVE PLANTS AND CONTROL ACTIONS TAKEN SHALL BE PROVIDED.
      iii) SUMMARY DATA AND PHOTOS TO SUBSTANTIATE THE NOTED CONCLUSIONS.
      iv) MAPS SHOWING LOCATION OF HABITAT ENHANCEMENT AREA AND SURROUNDING HABITATS, LOCATION OF PHOTOGRAPHIC REFERENCE POINTS, TRANSECTS, SAMPLING DATA POINTS AND/OR OTHER FEATURES PERTINENT TO THE ENHANCEMENT PLAN. THE MAPS SHOULD INCLUDE A LEGEND AND SHOULD FIT ON AN 8.5 X 11 INCH SHEET.
      v) CONCLUSIONS. IF APPLICABLE, A BRIEF DISCUSSION OF THE DIFFICULTIES, POTENTIAL REMEDIAL ACTIONS, AND TIME-TABLE PROPOSED BY THE PERMITTEE.
      vi) AS BUILT PLAN WITH 1-FOOT CONTOURS, STRUCTURES, EXTENT OF PLANT COMMUNITIES (FIRST YEAR ONLY).
   e) WITHIN 60 DAYS OF COMPLETING THE CONSTRUCTION PHASE OF THE HABITAT ENHANCEMENT PLAN, SUBMIT A SIGNED LETTER TO THE REGULATORY AGENCIES SPECIFYING THE DATE OF COMPLETION. IF HABITAT ENHANCEMENT CONSTRUCTION ACTIVITIES ARE NOT COMPLETED BY DECEMBER 31 OF ANY GIVEN YEAR, THE PERMITTEE SHALL PROVIDE THE REGULATORY AGENCIES WITH A LETTER PROVIDING THE DATE MITIGATION WORK BEGAN AND THE WORK COMPLETED AS OF DECEMBER 31. THE LETTER WILL BE SENT NO LATER THAN JANUARY 31 OF THE NEXT YEAR.
   f) DURING THE FINAL YEAR OF MONITORING, AN ADDITIONAL ASSESSMENT AND REPORT SHALL BE COMPLETED BY A WETLAND SCIENTIST OTHER THAN THE WETLAND SCIENTIST THAT COMPLETED THE ANNUAL MONITORING REPORTS. THE ASSESSMENT REPORT SHALL:
      i) SUMMARIZE THE ORIGINAL AND MODIFIED HABITAT ENHANCEMENT OBJECTIVES AND DISCUSS THE LEVEL OF ATTAINMENT OF THESE OBJECTIVES.
      ii) DESCRIBE SIGNIFICANT PROBLEMS AND SOLUTIONS DURING CONSTRUCTION AND MAINTENANCE (MONITORING) OF THE HABITAT ENHANCEMENT AREA
      iii) IDENTIFY REGULATORY AGENCY PROCEDURES OR POLICIES THAT ENCUMBERED IMPLEMENTATION OF THE HABITAT ENHANCEMENT PLAN
      iv) RECOMMEND MEASURES TO IMPROVE THE EFFICIENCY, REDUCE THE COST, OR IMPROVE THE EFFECTIVES OF SIMILAR PROJECTS IN THE FUTURE.

UPLAND TREE PLANTING DETAIL

NOT TO SCALE



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DRAWING NAME:
STONY BROOK STREAM CHANNEL IMPROVEMENTS: NOTES

DRAWING NUMBER:
25 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

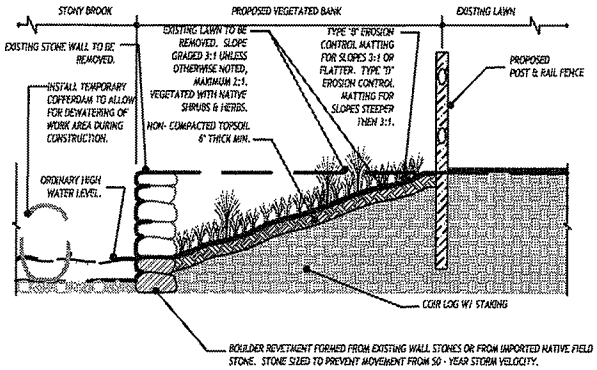
APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**

STREAM BANK TREATMENT "A"

NOT TO SCALE



STREAM BANK TREATMENT "B"

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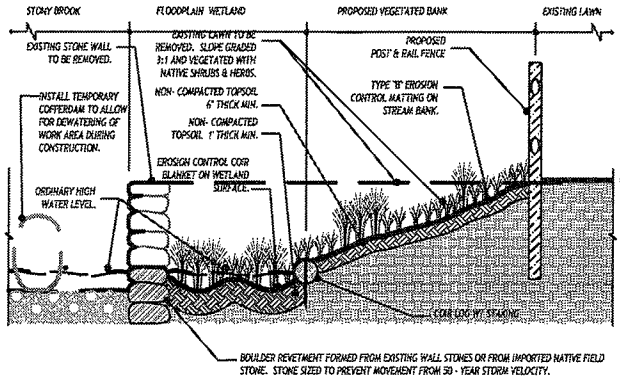

ROCK VANE

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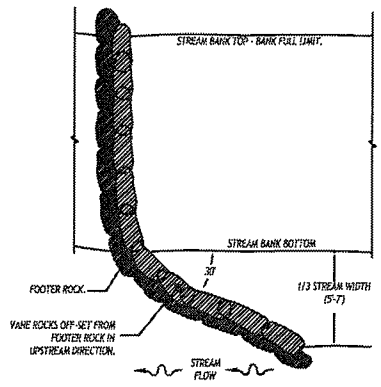
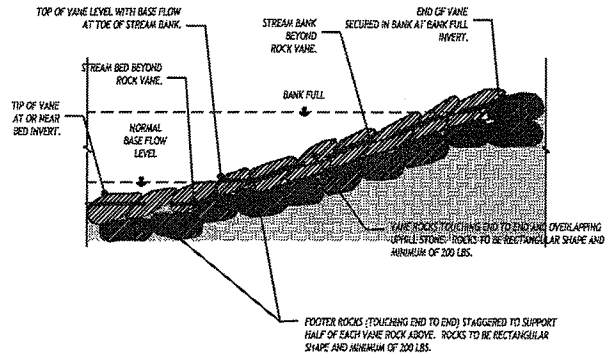


PLAN



SECTION

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DRAWING NAME:
STONY BROOK STREAM CHANNEL IMPROVEMENTS: DETAILS AND SPECS.

DRAWING NUMBER:
26 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
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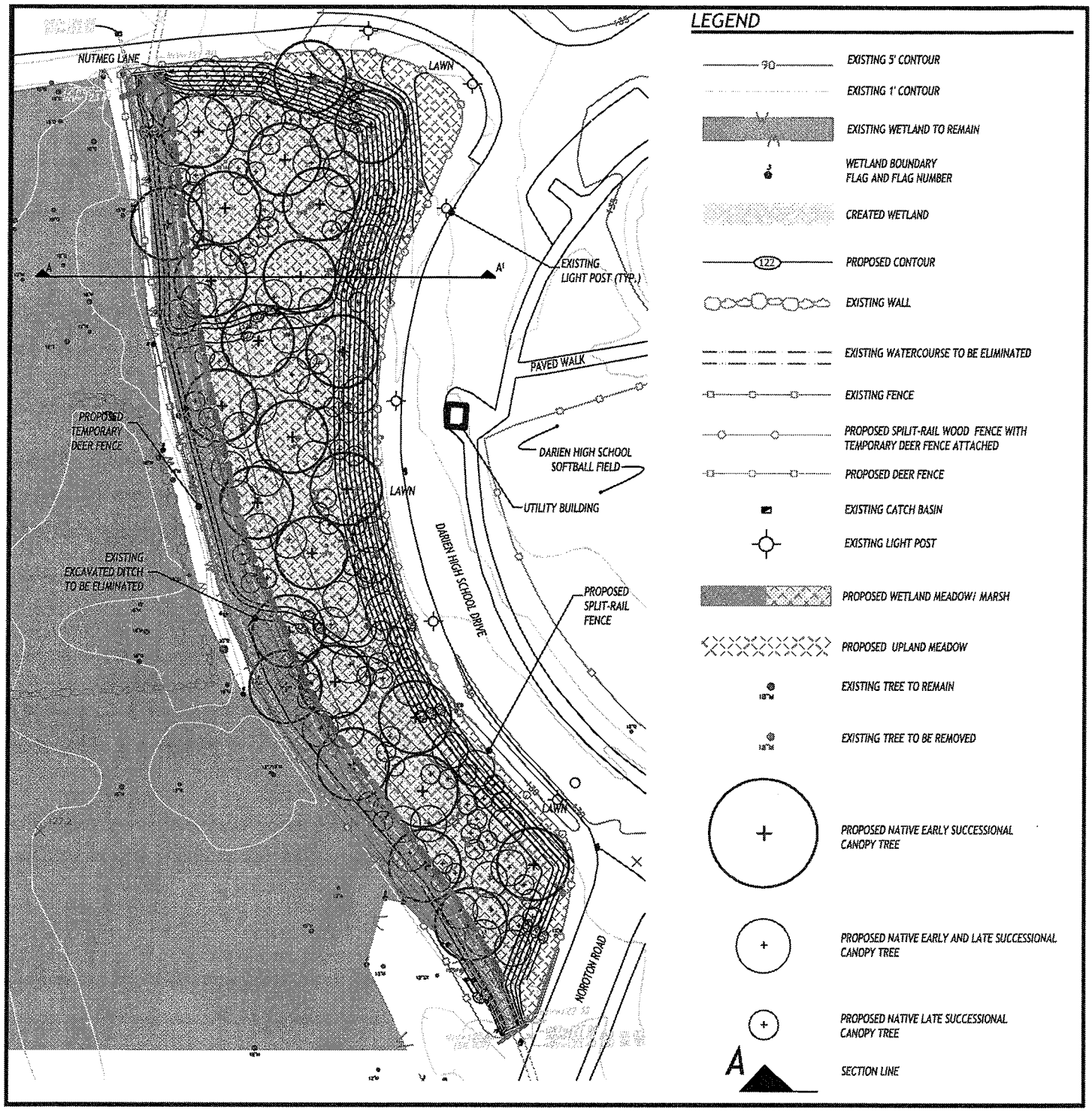
ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**



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DRAWING NAME:
DARIEN HIGH SCHOOL WETLAND CREATION AND ENHANCEMENT: SITE PLAN

DRAWING NUMBER:
27 OF 42

NORTH

SCALE:
0' 30' 60' 120'

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: ***FEBRUARY 10, 2009***

GENERAL NOTES

1. UNLESS OTHERWISE NOTED (FOR DARIEN HIGH SCHOOL) EXISTING STRUCTURES AND PAVEMENTS TAKEN FROM A SURVEY PREPARED BY JAMES W. DEWALL & COMPANY; ENTITLED "TOPOGRAPHIC MAP OF DARIEN, CT"; AND DATED JULY 20, 2008. EXISTING TREES, FENCES, WALLS, SANITARY SEWER LINE, WETLAND BOUNDARY AND SPOT GRADE ELEVATIONS PROVIDED BY WILLIAM SEYMOUR ASSOCIATES.
2. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY. IT IS NOT FOR CONSTRUCTION PURPOSES.

PLANT LIST

SYM.	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	ROOT	HABITAT		FOOD	COVER	NESTING
						UPLAND	LOWLAND			
TREES						▲	▲			
AC	20	AMELANCHIER CANADENSIS	SERVICEBERRY	6'-8' HT.	B&B	▲		ESF,P	•	•
CF	17	CORNUS FLORIDA	FLOWERING DOGWOOD	6'-8' HT.	B&B	▲	▲	FF,P	•	•
AR	17	ACER RUBRUM	RED MAPLE	8'-10' HT.	B&B	▲	▲	ESF,P	•	•
AR	4	ACER RUBRUM	RED MAPLE	2.5"-3" CAL.	B&B	▲	▲	ESF,P	•	•
AN	3	ACER NEGUNDO	BOX ELDER	2.5"-3" CAL.	B&B	▲		ESF,P	•	•
UA	3	ULMUS AMERICANA	AMERICAN ELM	2.5"-3" CAL.	B&B	▲		FS,P	•	•
AS	18	ACER SACCHARUM	SUGAR MAPLE	6'-8' HT.	B&B	▲		FS,P	•	•
FA	4	FRAXINUS AMERICANA	WHITE ASH	2.5"-3" CAL.	B&B	▲	▲	PWF,P	•	•
FP	3	FRAXINUS PENNSYLVANICA	GREEN ASH	2.5"-3" CAL.	B&B	▲	▲	PWF,P	•	•
FG	15	FAGUS GRANDIFOLIA	AMERICAN BEECH	8'-10' HT.	B&B	▲		ESF,P	•	•
Po	9	PLATANUS OCCIDENTALIS	SYCAMORE	8'-10' HT.	B&B	▲	▲	FF,P	•	•
PO	4	PLATANUS OCCIDENTALIS	SYCAMORE	2.5"-3" CAL.	B&B	▲	▲	FF,P	•	•
QB	19	QUERCUS BICOLOR	SWAMP WHITE OAK	6'-8' HT.	B&B	▲		ESF,P	•	•
QP	10	QUERCUS PALUSTRIS	PIN OAK	8'-10' HT.	B&B	▲	▲	ESF,P	•	•
LT	3	LIRIODENDRON TULIPIFERA	TULIP TREE	2.5"-3" CAL.	B&B	▲	▲	FF,P	•	•
QR	16	QUERCUS RUBRA	RED OAK	6'-8' HT.	B&B	▲	▲	ESF,P	•	•
TOTAL	165									

SEED MIXES

WETLAND MEADOW/MARSH: NEW ENGLAND WET MIX, AS PRODUCED BY NEW ENGLAND WETLAND PLANTS, INC (413 548 8000). APPLIED AT A RATE OF 1LB/2500 SQUARE FEET. WETMIX CONTAINS A WIDE VARIETY OF NATIVE SEEDS THAT ARE BEST SUITED TO MOIST DISTURBED GROUND AS FOUND IN MOST WET MEADOWS, SCRUB SHRUB, OR FORESTED WETLAND RESTORATION AREAS.

UPLAND MEADOW: NEW ENGLAND CONSERVATION/WILDLIFE MIX AS PRODUCED NEW ENGLAND WETLAND PLANTS, INC (413 548 8000). APPLIED AT A RATE OF 1 LB/1,250 SQUARE FEET. CONSERVATION/WILDLIFE MIX PROVIDES A PERMANENT COVER OF GRASSES, FORBS, WILDFLOWERS AND LEGUMES.

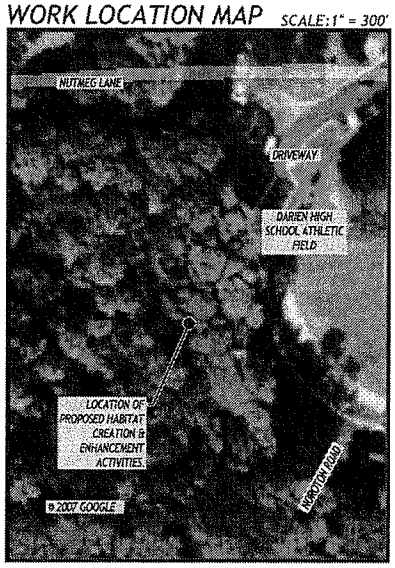
WILDLIFE BENEFIT KEY

FOOD TYPE: S=SEED, P=PLANT PART, N=NECTAR, R=ROOTSTOCK

FOOD AVAILABILITY: ESF=EARLY SUMMER FRUITS, FF=FALL FRUITS, PWF=PERSISTENT WINTER FRUITS, SSS=SPRING/SUMMER SEEDS, FS=FALL SEEDS

• INDICATES SIGNIFICANT CONTRIBUTION

WORK LOCATION MAP SCALE: 1" = 300'



TREE LEGEND

A = ASH	B= BEECH	BR = BIRCH
CH = CHERRY	E = ELM	H = HICKORY
L = LOCUST	M = MAPLE	MU= MULBERRY
O = OAK	S = SYCAMORE	T = TULIP

DRAWING PREPARED BY:

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DRAWING NAME:
DARIEN HIGH SCHOOL WETLAND CREATION AND ENHANCEMENT: SITE NOTES

DRAWING NUMBER:
28 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**

HABITAT MANAGEMENT SPECIFICATIONS

1) WETLAND CREATION AND ENHANCEMENT OBJECTIVES:
   a) EXPANDING AND DIVERSIFYING HABITAT TYPES THROUGH THE CREATION OF EMERGENT WETLAND; EARLY SUCCESSIONAL, MOSTLY OPEN CANOPY, WOODLAND WETLAND. THE EARLY SUCCESSIONAL WOODLAND WETLAND WILL BE ALLOWED TO MATURE INTO A MATURE WOODLAND WETLAND WITH A CLOSED CANOPY. THE WETLAND SOILS ARE EXPECTED TO BE REGULARLY TO SEMI-PERMANENTLY (26%-85%) SATURATED OR INUNDATED DURING THE GROWING SEASON.
   b) INCREASE THE ABUNDANCE AND DIVERSITY OF WETLAND FLORA. THIS WILL BE ACHIEVED THROUGH THE COMPLETION OF ITEM 1.A NOTED ABOVE AND BY INSTALLING AND MAINTAINING A DIVERSITY OF TREES, SHRUBS AND HERBS IN EACH HABITAT TYPE.
   c) INCREASE THE ABUNDANCE AND DIVERSITY OF WETLAND FAUNA. THIS WILL BE ACHIEVED THROUGH THE COMPLETION OF ITEMS 1.A AND 1.B. NOTED ABOVE AND BY INSTALLING AND MAINTAINING A DIVERSITY OF OTHER HABITAT FEATURES SUCH AS:
      i) INSTALLING AND MAINTAINING OF BIRD NESTING BOXES AND BAT HOUSES.
      ii) INCLUDING BULKY WOODY DEBRIS SUCH AS ROOTWADS.
   d) INCREASE THE STORM AND FLOODWATER STORAGE OF THE AREA. THIS WILL BE ACHIEVED THROUGH EXCAVATION AND LOW BERMING TO CREATE AN EXTENSIVE FLOOD AND STORMWATER STORAGE AREA.
   e) IMPROVE DOWN STREAM WATER QUALITY VIA THE RETENTION OF A PORTION OF THE FIRST FLUSH OF SURFACE WATER IN THE EMERGENT MARSH AND WOODLAND.
   f) CONTROL INVASIVE PLANT SPECIES THROUGH THE DENSE PLANTING AND MAINTENANCE OF NATIVE VEGETATION, LONG-TERM ESTABLISHMENT OF SHADE VIA CANOPY TREES, AND MONITORING AND MAINTENANCE ACTIVITIES FOLLOWING PLANTING.

2) HABITAT ENHANCEMENT SUCCESS STANDARDS
   a) THE HABITAT ENHANCEMENT ACTIVITIES WILL BE CONSIDERED A SUCCESS IF THE FOLLOWING STANDARDS ARE MET AT THE END OF THE PROJECT MONITORING PERIOD:
      i) PROPOSED WETLAND HYDROLOGIC OBJECTIVES ARE MET.
      ii) PROPOSED VEGETATION DIVERSITY AND DENSITY OBJECTIVES ARE MET.
      iii) EMERGENT MARSH HABITATS SHALL HAVE AT LEAST 80 PERCENT AERIAL COVER AND TREES SHALL HAVE AT LEAST 60 PERCENT AERIAL COVER. THE AERIAL COVERAGE EXCLUDES PLANNED OPEN WATER AREAS AND INVASIVE PLANTS.
      iv) COMMON REED, PURPLE LOOSESTRIFE, RUSSIAN AND AUTUMN OLIVE, BUCKTHORN, JAPANESE KNOTWEED AND/OR MULTIFLORA ROSE PLANTS WITHIN THE HABITAT ENHANCEMENT AREA ARE BEING CONTROLLED.
      v) ALL SLOPES, SOILS, SUBSTRATES, AND CONSTRUCTED FEATURES WITHIN AND ADJACENT TO THE HABITAT ENHANCEMENT AREA ARE STABLE.

3) WORK DESCRIPTION
   PROVIDE ALL MEANS AND MATERIALS NECESSARY FOR SUPPLYING, INSTALLING AND MAINTAINING THE TYPE AND SIZE OF THE PLANT MATERIAL AND OTHER IMPROVEMENTS INDICATED IN THE HABITAT ENHANCEMENT PLANTING PLAN AND FOR ACHIEVING THE HABITAT ENHANCEMENT OBJECTIVES AND SUCCESS STANDARDS.

4) QUALITY ASSURANCE
   a) A WETLAND SCIENTIST SHALL BE ONSITE TO MONITOR CONSTRUCTION, MONITORING AND MAINTENANCE OF THE HABITAT ENHANCEMENT ACTIVITIES TO ENSURE COMPLIANCE WITH THE DESIGN AND SPECIFICATIONS AND TO MAKE ADJUSTMENTS WHEN APPROPRIATE TO MEET ENHANCEMENT OBJECTIVES.
   b) ALL WORK SHALL BE PERFORMED BY PERSONNEL WITH WETLAND HABITAT RESTORATION AND ENHANCEMENT PROJECT EXPERIENCE, UNDER THE DIRECTION OF A SKILLED FOREMAN WITH A MINIMUM THREE YEARS EXPERIENCE.
   c) THE PLANNING, ACCOMPLISHING AND MAINTAINING OF THE HABITAT ENHANCEMENT ACTIVITIES ARE THE RESPONSIBILITY OF THE TOWN OF DARIEN.
   d) ALL HEAVY EQUIPMENT STORAGE, REFUELING AND MINOR MAINTENANCE IS TO TAKE PLACE OUTSIDE OF THE REGULATED WETLANDS AND WATERCOURSES.
   e) DISPOSE OF EXCESS MATERIAL AND DEBRIS RESULTING FROM THE PROPOSED HABITAT ENHANCEMENT WORK OFF-SITE. LEAVE WORK AREA CLEAN AND NEAT UPON COMPLETION OF THE WORK. REPAIR ANY DAMAGED DONE TO THE EXISTING SITE IMPROVEMENT AS A RESULT OF THE WORK.

5) PRODUCT AND EXECUTION DATA
   a) SOIL
      i) TOPSOIL SHALL CONSIST OF A MIXTURE OF EQUAL VOLUMES OF ORGANIC AND MINERAL MATERIALS. WELL DECOMPOSED LEAF-COMPOST OR EQUAL (NOT INCLUDING PEAT) SHALL BE USED FOR THE ORGANIC MATERIAL, WHICH SHALL BE FREE OF WEED SEEDS AND PHYSICAL (E.G., PLASTIC) AND CHEMICAL CONTAMINANTS. THE ORGANIC MATTER CONTENT SHOULD BE 15 TO 25 PERCENT BY DRY WEIGHT.
      ii) PROVIDE DOCUMENTATION REGARDING THE SOURCE OF TOPSOIL AND THE POTENTIAL FOR THE PRESENCE OF INVASIVE SPECIES SEEDS.
      iii) TESTING OF THE TOPSOIL BY AN ACCEPTABLE LABORATORY PRIOR TO PLANTING WILL BE THE RESPONABILITY OF THE SITE CONTRACTOR. APPLICATIONS OF ORGANIC SOIL AMENDMENTS MAY BE REQUIRED IN ACCORDANCE WITH THE "STANDARDS FOR ORGANIC LAND CARE" (SOLC) AS PUBLISHED BY THE NORTHEAST ORGANIC FARMING ASSOCIATION TO ACHIEVE DESIRED SOIL HEALTH AND FERTILITY.
      iv) SPREAD TOPSOIL TO A DEPTH REQUIRED TO ACHIEVE THE MICROTOPOGRAPHIC VARIATION AND TO MEET THICKNESS, GRADES, AND ELEVATIONS SHOWN ON THE PLAN AND DETAILS.
   b) COARSE WOODY DEBRIS
      i) COARSE WOODY DEBRIS (CWD) SHALL INCLUDE SUCH MARTERIALS AS LOGS, STUMPS, SMALLER BRANCHES, AND STANDING SNAGS FROM NATIVE SPECIES. CWD SHALL BE IN VARIOUS STAGES OF DECAY AND SALVAGED FROM THE EXISTING SITE WOODLAND.
      ii) CWD SHALL COVER AT LEAST 4% OF THE GROUND THROUGHOUT THE HABITAT ENHANCEMENT AREA.
   c) VEGETATION
      i) GENERAL
         (1) ALL VEGETATION USED FOR PERMANENT PLANTINGS SHALL BE GROWN AND PROPAGATED FROM NATIVE PLANTS GROWING NATURALLY WITHIN 200 MILES OF THE SITE.
         (2) NON NATIVE, NON INVASIVE ANNUALS MAY BE USED FOR TEMPORARY PLANTINGS IF APPROVED BY THE OWNER'S REPRESENTATIVE.
         (3) PROVIDE A CERTIFICATE OR INVOICE FROM THE PLANT MATERIAL SUPPLIERS INDICATING THE PLANT SOURCE, THE BOTANICAL NAME, QUANTITY, AND SIZE OF THE PLANTS DELIVERED TO THE PROJECT SITE, IN ADDITION TO PROVIDING ALL PLANT LABELS.
         (4) ALL PLANT MATERIALS SHALL BE INSPECTED FOR DEFECTS, DISEASE, DAMAGE OR INSECTS BEFORE PLANTING. ANY SUBSTANDARD PLANTS SHALL BE RETURNED TO, AND REPLACED BY THE CONTRACTOR. ACCEPTABLE PLANTINGS ARE TO BE PLANTED PER THE SPECIFICATIONS OF THE PLANTING PLAN.
         (5) ALL PLANT MATERIALS ARE SUBJECT TO REPLACEMENT BY SUITABLE ALTERNATIVES PER AGREEMENT BETWEEN THE PROPERTY OWNER, NURSERY CONTRACTOR, AND APPROPRIATE REGULATORY AGENCIES (E.G., CORPS).
         (6) ALL PLANT MATERIAL LOCATIONS ARE SUBJECT TO FIELD ADJUSTMENTS IN RESPONSE TO SITE CONDITIONS. THESES ADJUSTEMENTS SHALL BE THE DISCRETION OF THE PROPERTY OWNER. UNDER THE DIRECTION OF A QUALIFIED WETLAND SCIENTIST, UP TO 50 PERCENT OF THE PLANTS MAY BE LOCATED DIFFERENTLY THAN SHOWN ON THE DRAWINGS.
         (7) SIZES SHALL CONFORM TO MEASUREMENTS SPECIFIED IN THE PLANT LIST. USE PLANTS LARGER THAN SPECIFIED IF APPROVED BY THE OWNER'S REPRESENTATIVE, AND CAUSES NO INCREASE TO THE CONTRACT PRICE.
         (8) MAKE ALL NESSECARY MEASUREMENTS TO PROPERLY LOCATE PLANTS AS SHOWN ON THE DRAWING. LOCATIONS OF PLANTS SHALL BE VERIFIED BY PROPERRY OWNER PRIOR TO INSTALLATION. ANY PLANTS INSTALLED PRIOR TO THE APPROVAL OF THE PROPERTY OWNER SHALL BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER.
         (9) PRIOR TO PLANTING, VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES. EXERCISE CARE WHEN DIGGING IN THESE AREAS. ASSUME RESPONSIBILTIY FOR ANY DAMAGE AND REPLACEMENT OR REPAIR AT THE CONTRACTOR'S EXPENSE.
      ii) TREES AND SHRUBS
         (1) TREES SHALL BE LOCATED NO CLOSER THAN 5 FEET FROM A WATERCOURSE EDGE.
         (2) PLACE THE PLANT IN THE CENTER OF THE PIT, HUMMOCK OR SPACED IN BEDS AS INDICATED ON THE DRAWINGS. SET THE PLANT PLUMB AND ADJUST ITS HEIGHT TO ACHIEVE THE ELEVATION SHOWN ON THE DRAWINGS BY PLACING PREPARED SOIL BENEATH THE ROOTBALL. BURLAP, ROPE, WIRE BASKETS OR OTHER MATERIAL SHALL BE CUT AND REMOVED FROM THE TOPS OF THE ROOTBALL AND NOT LEFT IN THE PLANTING PIT. BACKFILL AROUND THE ROOTBALL WITH PREPARED PLANTING SOIL. UNIFORMLY COMPACT AND WATER THE PREPARED PLANTING SOIL TO FILL VOIDS AND TO FIRMLY SECURE ROOTBALL.
         (3) FORM A "SAUCER" AT THE SURFACE OF THE PLANTING PIT, HUMMOCK OR BED WITH TOPSOIL. SHAPE THE SAUCER TO THE DIMENSIONS INDICATED ON THE DRAWINGS. BLEND THE PERIMETER OF THE SAUCERS AND BEDS TO FORM A SMOOTH AND UNIFORM TRANSITION TO FINISH GRADE.
         (4) IMMEDIATELY AFTER PLANTING, FIRMLY INSTALL STAKES AS INDICATED ON THE DRAWINGS. ATTACH GUY WIRES, TURNBUCKLES AND FRICTION GUARDS TO TREE AND STAKES. TIE WIRES TO SECURELY ANCHOR TREE.
         (5) COVER ALL TREE PITS AND PLANTING BEDS WITH THE SPECIFIED MULCH DEPTH, DIMENSIONS, AND AREAS INDICATED ON THE DRAWING.
         (6) PRUNE IN ACCORDANCE WITH AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS TO REMOVE DEAD AND DISEASED PORTION OF THE PLANT.
         (7) ALL WIRE FLAGS USED TO IDENTIFY PLANT LOCATIONS SHALL BE REMOVED AFTER PLANT INTRODUCTION AND CONFIRMATION BY THE PROPERTY OWNER.
      iii) HERBS
         (1) USE PURE LIVE SEED ONLY.
         (2) SEED WHEN SOILS ARE NOT INUNDATED. DO NOT ALLOW INUNDATION TO OCCUR UNTIL THE HEIGHT OF SEEDED PLANTS EXCEED INUNDATION DEPTHS.
         (3) SURFACE-SOW SEED AND THEN PUSH SEED INTO CONTACT WITH THE TOPSOIL.
         (4) APPLY SEED AT RATES AS SPECIFICED ON THE PLANT LIST.
         (5) SURFACE PREPARATION. LOOSEN SUBGRADE OF THE PLANTING BED AREAS TO A MINIMUM DEPTH OF 3".
         (6) IMMEDIATELY FOLLOWING SEEDING, MULCH THE SEEDED SURFACE WITH STERILE STRAW AT A RATE OF 1.5 TO 3 TONS/ACRE. SPREAD MULCH BY HAND OR DISK HARROW SET STRAIGHT.
         (7) LIMIT OF SEEDING IS SUBJECT TO FIELD ADJUSTMENT IN RESPONSE TO SITE CONDITIONS. THESE ADJUSTMENTS SHALL BE AT THE DISCRETION OF THE PROJECT WETLAND SCIENTIST.

4) MAINTENANCE
   a) MAINTENANCE IS TO BEGIN IMMEDIATELY AFTER PLANTING HAS BEEN COMPLETED.
   b) THE MAINTENACE PERIOD SHALL BE EXTENDED AT NO ADDITIONAL COST TO THE PROPERTY OWNER UNTIL PREVIOUS PUNCH LIST ITEMS HAVE BEEN CORRECTED, AT WHICH TIME THE FINAL INSPECTION WILL BE MADE.
   c) ALL PLANT MATERIAL SHALL BE PRUNED, WEEDED, AND SOIL AMENDMENTS ADDED AS REQUIRED TO KEEP PLANT MATERIAL IN A HEALTHY GROWING CONDITION.
   d) PROTECT ALL PLANTED AREAS AGAINST DAMAGE, INCLUDING EROSION, WILDLIFE, AND TRESPASSING BY PROVIDING AND MAINTAINING PROPER SAFEGUARDS.
   e) ALL PLANT STOCK SHALL BE WATERED UPON COMPLETION OF PLANTING. ARRANGEMENTS SHALL BE MADE TO PROVIDE ADEQUATE IRRIGATION TO INTRODUCED PLANTING STOCK AND SEEDED AREAS UNTIL PLANTS ARE FIRMLY ESTABLISHED. IRRIGATION SHALL NOT TO BE USED TO PROVIDE WETLAND HYDROLOGY. IRRIGATION SHALL BE DISCONTINUED AND MEASURES SHALL BE REMOVED NO LATER THAN THE END OF THE SECOND GROWING SEASON UNLESS SPECIFIED OTHERWISE.
   f) RESET SETTLED PLANTS TO PROPER GRADE AND POSITION. ADJUST OR REPLACE STAKES, GUYING MATERIALS, TO SECURELY ANCHOR AND PROTECT.
   g) AT THE END OF THE MAINTENANCE PERIOD, ALL PLANT MATERIAL SHALL BE IN A HEALTHY GROWING CONDITION AS RELATED TO CONDITIONS WITHIN THE CONTROL OF THE CONTRACTOR
   h) CONTROL INVASIVE SPECIES FOR A MINIMUM OF FIVE YEARS FOLLOWING THE CONSTRUCTION PHASE OF THE PROJECT.
      i) INVASIVE SPECIES ARE THOSE SPECIES IDENTIFIED IN TABLE 4 OF THE "NEW ENGLAND DISTRICT MITIGATION PLAN CHECKLIST" DATED JANUARY 12, 2007 AND PUBLISHED BY THE US ARMY CORP OF ENGINEERS.
      ii) CONDUCT THE CONTROL ACTIVITIES UNDER THE DIRECTION OF A QUALIFIED WETLAND SCIENTIST AT LEAST TWICE EACH GROWING SEASON - IN LATE SPRING/EARLY SUMMER AND AGAIN IN LATE SUMMER/EARLY FALL. MONITORING AND MAINTENANCE WILL INCLUDE:
         (1) DETERMINE THE PRESENCE AND ABUNDANCE OF INVASIVE PLANTS.
         (2) FIELD MARK (VIA FLAGGING OR OTHER MEANS) DESIRABLE VEGETATION TO REMAIN AND INVASIVE (UNDESIRABLE) PLANTS TO BE CONTROLLED.
         (3) CONTROL INVASIVES PLANTS VIA PHYSICAL OR CHEMICAL METHODS. THE METHOD TYPE WILL BE DETERMINED BY THE WETLAND SCIENTIST BASED ON THE TYPE AND ABUNDANCE OF INVASIVE PLANTS AND THE TYPE AND ABUNDANCE OF ADJACENT DESIRABLE PLANTS. THE PLANT CONSERVATION ALLIANCE'S ALIEN PLANT WORKING GROUP DATABASE (HTTP://WWW.NPS.GOV/PLANTS/ALIEN/FACTMAIN.HTM) REGARDING THE CONTROL OF INVASIVE PLANT SPECIES WILL BE CONSULTED TO ASSIST WITH SPECIFYING AN APPROPRIATE METHODOLOGY. COMPLETE PHYSICAL PLANT CONTROL ACTIVITIES BY HAND OR VIA HAND TOOLS (E.G., WEED WRENCH, BRUSH CUTTER). CHEMICAL METHODS WILL PRIMARILY INCLUDE THE USE OF GLYPHOSPHATE-BASED HERBICIDES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE LAWS.

6) MONITORING AND REPORTING:
   a) MONITOR THE CONDITIONS OF THE HABITAT ENHANCMENT IMPROVEMENTS FOR FIVE YEARS. THE FIRST YEAR OF MONITORING SHALL BEGIN FOLLOWING THE FIRST FULL GROWING SEASON FOLLOWING CONSTRUCTION COMPLETION AND PLANTING.
   b) CONDUCT MONITORING ACTIVITIES AT LEAST TWICE EACH GROWING SEASON - IN LATE SPRING/EARLY SUMMER AND AGAIN IN LATE SUMMER/EARLY FALL.
   c) THE PROJECT WETLAND SCIENTIST SHALL PREPARE AND SUBMIT AN ANNUAL MONITORING REPORT TO THE REGULATORY AGENCIES BY DECEMBER 15TH OF EACH MONITORING YEAR. A SELF-CERTIFICATION FORM WILL BE COMPLETED AND SIGNED AS A TRANSMITTAL COVERSHEET FOR EACH ANNUAL MONITORING REPORT.
   d) THE MONITORING REPORTS SHALL BE CONCISE (MAXIMUM 10 PAGES) AND EFFECTIVELY PROVIDE THE INFORMATION NECESSARY TO ASSESS THE STATUS OF THE COMPENSATORY MITIGATION PROJECT. THE REPORTS SHALL INCLUDE:
      i) PROJECT OVERVIEW
      ii) CONCLUSIONS REGARDING WHETHER THE HABITAT ENHANCEMENT PLAN IS SUCCESSFULLY ACHIEVING THE ENHANCEMENT OBJECTIVES. IN ADDITION, , INFORMATION REGARDING THE DISCOVERY OF POTENTIAL INVASIVE PLANTS AND CONTROL ACTIONS TAKEN SHALL BE PROVIDED.
      iii) SUMMARY DATA AND PHOTOS TO SUBSTANTIATE THE NOTED CONCLUSIONS.
      iv) MAPS SHOWING LOCATION OF HABITAT ENHANCEMENT AREA AND SURROUNDING HABITATS, LOCATION OF PHOTOGRAPHIC REFERENCE POINTS, TRANSECTS, SAMPLING DATA POINTS AND/OR OTHER FEATURES PERTINENT TO THE ENHANCEMENT PLAN. THE MAPS SHOULD INCLUDE A LEGEND AND SHOULD FIT ON AN 8.5 X 11 INCH SHEET.
      v) CONCLUSIONS. IF APPLICABLE, A BRIEF DISCUSSION OF THE DIFFICULTIES, POTENTIAL REMEDIAL ACTIONS, AND TIME-TABLE PROPOSED BY THE PERMITTEE.
      vi) AS-BUILT PLAN WITH 1-FOOT CONTOURS, STRUCTURES, EXTENT OF PLANT COMMUNITIES (FIRST YEAR ONLY).
   e) WITHIN 60 DAYS OF COMPLETING THE CONSTRUCTION PHASE OF THE HABITAT ENHANCEMENT PLAN, SUBMIT A SIGNED LETTER TO THE REGULATORY AGENCIES SPECIFYING THE DATE OF COMPLETION. IF HABITAT ENHANCEMENT CONSTRUCTION ACTIVITIES ARE NOT COMPLETED BY DECEMBER 31 OF ANY GIVEN YEAR, THE PERMITTEE SHALL PROVIDE THE REGULATORY AGENCIES WITH A LETTER PROVIDING THE DATE MITIGATION WORK BEGAN AND THE WORK COMPLETED AS OF DECEMBER 31. THE LETTER WILL BE SENT NO LATER THAN JANUARY 31 OF THE NEXT YEAR.
   f) DURING THE FINAL YEAR OF MONITORING, AN ADDITIONAL ASSESSMENT AND REPORT SHALL BE COMPLETED BY A WETLAND SCIENTIST OTHER THAN THE WETLAND SCIENTIST THAT COMPLETED THE ANNUAL MONITORING REPORTS. THE ASSESSMENT REPORT SHALL:
      i) SUMMARIZE THE ORIGINAL AND MODIFIED HABITAT ENHANCEMENT OBJECTIVES AND DISCUSS THE LEVEL OF ATTAINMENT OF THESE OBJECTIVES.
      ii) DESCRIBE SIGNIFICANT PROBLEMS AND SOLUTIONS DURING CONSTRUCTION AND MAINTENANCE (MONITORING) OF THE HABITAT ENHANCEMENT AREA.
      iii) IDENTIFY REGULATORY AGENCY PROCEDURES OR POLICIES THAT ENCUMBERED IMPLEMENTATION OF THE HABITAT ENHANCEMENT PLAN.
      iv) RECOMMEND MEASURES TO IMPROVE THE EFFICIENCY, REDUCE THE COST, OR IMPROVE THE EFFECTIVES OF SIMLAR PROJECTS IN THE FUTURE.

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DRAWING NAME:
DARIEN HIGH SCHOOL WETLAND CREATION AND ENHANCEMENT: SPECIFICATIONS

DRAWING NUMBER:
29 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

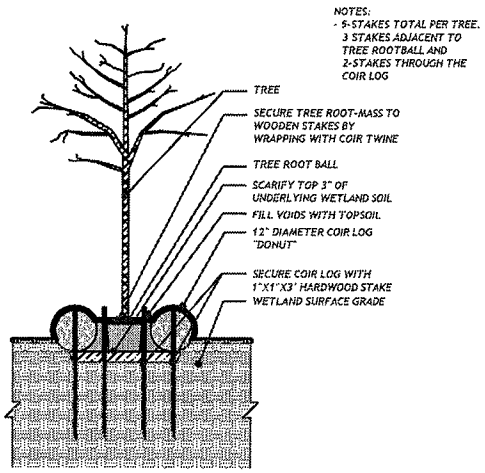
APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**

WETLAND TREE PLANTING DETAIL

NOT TO SCALE



UPLAND TREE PLANTING DETAIL

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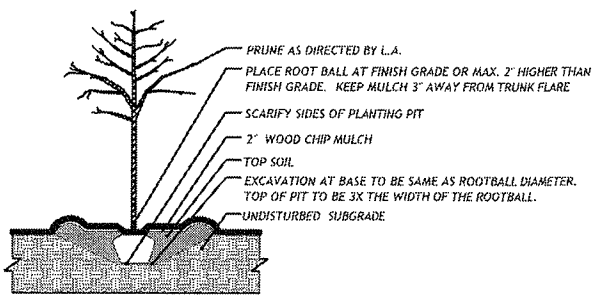

TYPICAL CONSTRUCTED WETLAND SECTION

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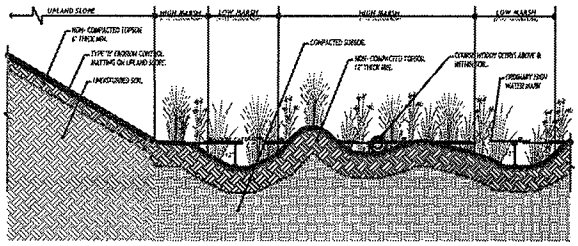

SECTION A-A1

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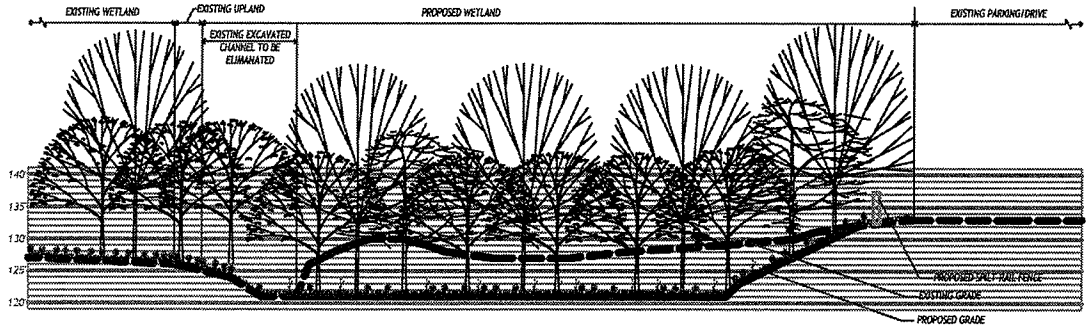

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DRAWING NAME:
DARIEN HIGH SCHOOL WETLAND CREATION AND ENHANCEMENT: DETAILS & SPECS.

DRAWING NUMBER:
30 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
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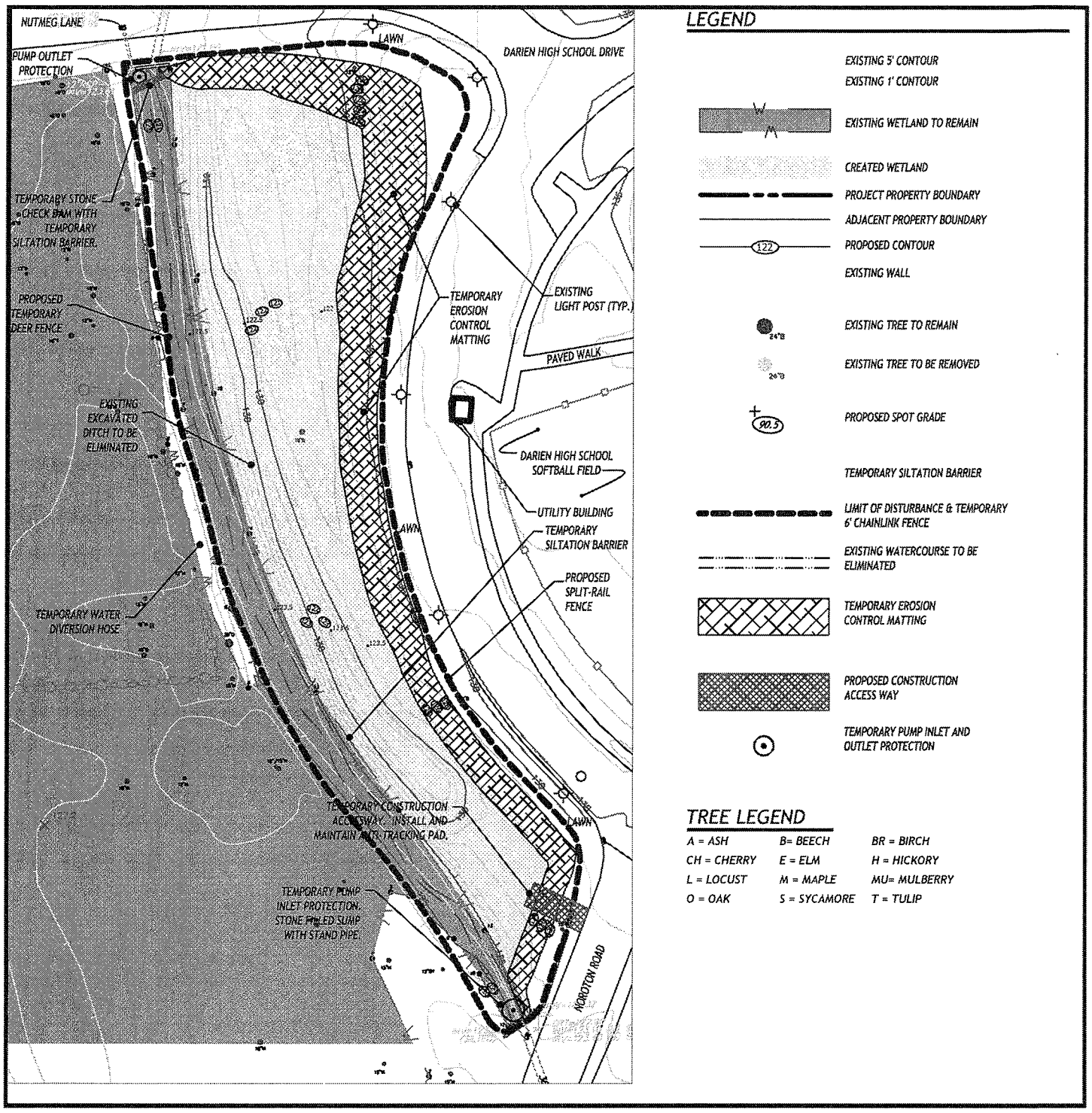
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**



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DRAWING NAME:
DARIEN HIGH SCHOOL WETLAND CREATION AND ENHANCEMENT: EROSION & SEDIMENT CONTROL

DRAWING NUMBER:
31 OF 42

NORTH

SCALE:
0' 30' 60' 120'

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**

GENERAL NOTES

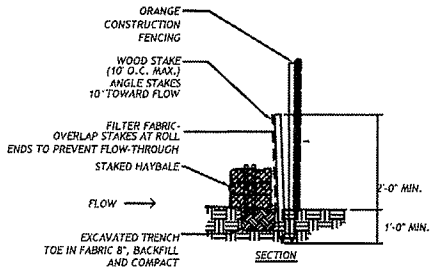
1. ALL WETLAND AND TREE INFORMATION FOR DARIEN HIGH SCHOOL TAKEN FROM A SURVEY PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES, P.C., 2009 SITE OBSERVATIONS ARE FROM WILLIAM KENNY ASSOCIATES LLC AND TOPOGRAPIC INFORMATION IS FROM JAMES W. DEWALL & COMPANY; ENTITLED "TOPOGRAPHIC MAP OF DARIEN, CT"; AND DATED JULY 20, 2008.
2. WORK WITHIN AND ADJACENT TO WETLANDS OR WATERCOURSES SHALL BE DONE DURING PERIODS OF LOW FLOW, WHENEVER POSSIBLE. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO SECURE THE WORK SITE BEFORE A MAJOR STORM EVENT, AS DEFINED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION WEATHER SERVICE. CONSTRUCTION STRUCTURES, MATERIALS AND EQUIPMENT SHALL BE ANCHORED OR RESTRAINED TO PREVENT DISPLACEMENT OR FLOTATION OR WILL BE REMOVED FROM THE WORK AREA (TO AREAS LOCATED ABOVE ELEVATION 49) BEFORE A MAJOR STORM EVENT.
3. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY. IT IS NOT FOR CONSTRUCTION PURPOSES.
4. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
5. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES, A CONSTRUCTION SEQUENCING PLAN AND A WATER HANDLING PLAN MUST BE SUBMITTED TO THE PROJECT WETLAND SCIENTIST IN WRITING FOR APPROVAL.
6. A WRITTEN PROPOSAL FOR SPECIFIC METHODS AND DEVICES TO BE USED FOR DEWATERING ACTIVITIES MUST BE SUBMITTED TO THE PROJECT WETLAND SCIENTIST FOR APPROVAL BEFORE THOSE OPERATIONS CAN BEGIN. THE WETLAND SCIENTIST MAY CEASE DEWATERING OPERATIONS IF EXCESSIVE TURBIDITY BECOMES A PROBLEM.
7. UNCONFINED WORK WITHIN STONY BROOK OR OTHER WATERWAY SHALL BE RESTRICTED TO THE TIME PERIOD OF JUNE 1 TO SEPTEMBER 30.
8. WORK WITHIN AND ADJACENT TO WETLANDS OR WATERCOURSES SHALL BE DONE DURING PERIODS OF LOW FLOW, WHENEVER POSSIBLE.
9. WITHIN 7 DAYS OF SETTING THE APPROXIMATE FINAL GRADE ON SLOPES, SEEDING WILL BE ACCOMPLISHED AS DETERMINED BY THE PROJECT WETLAND SCIENTIST. IF THE GRADING OPERATION WILL BE SUSPENDED FOR 30 OR MORE CONSECUTIVE DAYS, SEEDING OR SOME FORM OF SOIL STABILIZATION WILL BE REQUIRED.

PROJECT SEQUENCE

1. INSTALL PERIMETER SECURITY FENCE AS SHOWN ON PLAN.
2. INSTALL TEMPORARY SILTATION BARRIER AS SHOWN ON THE PLAN IMMEDIATELY EAST OF EXISTING WETLAND/WATERCOURSE.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE ANTI TRACKING PAD.
4. OBTAIN TOWN APPROVAL OF INSTALLATED SEDIMENT AND EROSION CONTROLS.
5. MARK AND CUT TREES TO BE REMOVED. LEAVE ROOT SYTEMS IN PLACE.
6. GRUB/REMOVE VEGETATION FROM WORK AREA LOCATED EAST OF EXISTING WATERCOURSE/WETLAND AND INSTALLED TEMPORARY SILTATION BARRIER.
7. EXCAVATE AND GRADE PROPOSED WETLAND CREATION AREA LOCATED EAST OF THE EXISTING WATERCOURSE.
8. ESTABLISH TEMPORARY WATER DIVERSION AS SHOWN ON PLAN. CONTINUE DIVERSION AS NEEDED UNTIL CONSTRUCTION AREA IS PERMANENTLY STABILIZED.
9. REMOVE TEMPORARY SILTATION BARRIER AS SHOWN ON THE PLAN IMMEDIATELY EAST OF EXISTING WETLAND/WATERCOURSE.
10. GRADE PROPOSED WETLAND CREATION AREA LOCATED IN THE AREA OF THE EXISTING WATERCOURSE.
11. PLACE TOPSOIL AND THEN FINISH GRADE THE SOIL SURFACE.
12. INSTALL VEGETATION AND OTHER HABITAT FEATURES.
13. ALLOW SOWN SEED TO GERMINATE.
14. DISCONTINUE WATER DIVERSION AND ALLOW SURFACE WATER TO FLOW THROUGH THE NEWLY CREATED WETLAND.
15. FOLLOWING SITE STABILIZATION, REMOVE SEDIMENTATION CONTROLS.
16. MAINTAIN PERIMETER SECURITY FENCING AS NEEDED TO PROTECT INSTALLED PLANTINGS AND OTHER IMPROVEMENTS FROM HUMAN OR WILDLIFE DAMAGE.

SILTATION BARRIER DETAIL

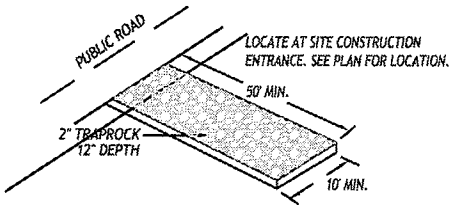
NOT TO SCALE



1. INSPECT BARRIER AFTER EACH STORM EVENTAND DAILY DURING PROLONGED RAINFALL.
2. REMOVE SEDIMENT WHEN IT REACHES APPROXIMATELY ONE-HALF THE BARRIER HEIGHT.
3. HAYBALES MUST BE TIGHTLY ABUTTING WITH NO GAPS AND STAKED IN PLACE.

ANTI- TRACKING PAD DETAIL

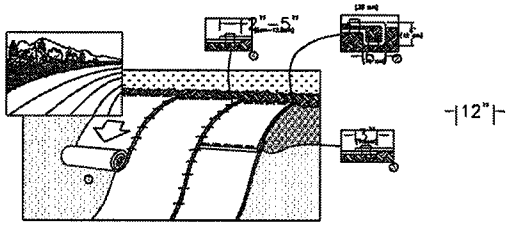
NOT TO SCALE



1. EFFECTED PORTIONS OF OFFSITE ROADS MUST BE KEPT CLEAN. ALL SEDIMENT DROPPED OR TRACKED ONTO ROADWAYS IS TO BE REMOVED IMMEDIATELY.

TEMPORARY EROSION CONTROL MATTING

NOT TO SCALE



1. MAT SHALL CONSIST OF ULTRAVIOLET LIGHT RESISTANT POLYMER OR SYNTHETIC FIBERS MECHANICALLY, STRUCTURALLY, AND/OR CHEMICALLY BOUND TOGETHER FOR A CONTINUOS MATRIX OF CONSISTENT THICKNESS.
2. MAT SHALL CONTAIN NO CONTAMINANT THAT POLLUTE THE AIR OR WATER OF THE STATE WHEN PROPERLY INSTALLED AND BE FREE OF ANY SUBSTANCE TOXIC TO PLANT GROWTH AND UNPROTECTED HUMAN SKIN OR WHICH INTERFERES WITH SEED GERMINATION.

DRAWING PREPARED BY:

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

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FAIRFIELD, CT 06825
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DRAWING NAME:
DARIEN HIGH SCHOOL WETLAND CREATION AND ENHANCEMENT: EROSION & SEDIMENT CONTROL NOTES & DETAILS

DRAWING NUMBER:
32 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**

GENERAL NOTES

1. ALL EXISTING CONDITIONS INFORMATION FOR BAKER PARK TAKEN FROM A SURVEY PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES, P.C.; ENTITLED "TOPOGRAPHIC SURVEY"; AND DATED NOVEMBER 12, 2008.
2. UNLESS OTHERWISE NOTED (FOR DARIEN HIGH SCHOOL) EXISTING STRUCTURES AND PAVEMENTS TAKEN FROM A SURVEY PREPARED BY JAMES W. DEWALL & COMPANY; ENTITLED "TOPOGRAPHIC MAP OF DARIEN, CT"; AND DATED JULY 20, 2008. EXISTING TREES, FENCES, WALLS, SANITARY SEWER LINE, WETLAND BOUNDARY AND SPOT GRADE ELEVATIONS PROVIDED BY WILLIAM SEYMOUR ASSOCIATES.
3. UNLESS OTHERWISE NOTED (FOR STONY BROOK STREAM CHANNEL AND BANK IMPROVEMENTS) EXISTING STRUCTURES AND PAVEMENTS TAKEN FROM A SURVEY PREPARED BY JAMES W. DEWALL & COMPANY; ENTITLED "TOPOGRAPHIC MAP OF DARIEN, CT"; AND DATED JULY 20, 2008. EXISTING TREES, FENCE, WALLS, SANITARY SEWER LINE, WETLAND BOUNDARY AND SPOT GRADE ELEVATIONS PROVIDED BY DEWBERRY, INC
4. MAPPING FOR THE MAPLE STREET & RELIHAN ROAD CHANNEL IMPROVEMENTS WAS COMPILED FROM AERIAL TOPOGRAPHIC MAPS PREPARED BY GOLDEN AERIAL SURVEY'S., 141 MT. PLEASANT ROAD, PO BOX 747, NEWTOWN CT 06470 AND SUPPLEMENTED BY OTHER MAPS ON FILE WITH THE TOWN OF DARIEN AND GROUND SURVEY BY WILLIAM W. SEYMOUR & ASSOCIATES, PC, 170 NOROTON AVENUE, DARIEN,CT 06820.
5. NO WETLAND OR WATERCOURSE ACTIVITIES ARE PROPOSED AT THE HEIGHTS ROAD RAILROAD WORK AREA.
6. SEE DRAWING 19 FOR WETLAND AND WATERCOURSE ACTIVITIES ACREAGE.
7. NO WETLAND OR WATERCOURSE ACTIVITIES ARE PROPOSED AT THE HEIGHTS ROAD RAILROAD AREA.
8. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY. IT IS NOT FOR CONSTRUCTION PURPOSES.

LEGEND

- EXISTING WATERCOURSE AREA TO REMAIN
- EXISTING WATERCOURSE AREA TO BE ELIMINATED AND THEN CONVERTED TO UPLAND
- EXISTING WATERCOURSE OR WETLAND TO BE ENHANCED
- EXISTING WATERCOURSE AREA TO BE ELIMINATED AND RECREATED
- NEW WETLAND
- NEW WATERCOURSE
- EXISTING WETLAND AREA TO REMAIN
- EXISTING WETLAND AREA TO BE ELIMINATED AND THEN CONVERTED TO UPLAND
- EXISTING WETLAND AREA TO BE ELIMINATED AND RECREATED
- EXISTING WETLAND TO BE ELIMINATED & NEW STORMWATER WETLAND CREATED
- NEW STORMWATER WETLAND
- NEW STREAM BANK ENHANCEMENT

WETLAND AND WATERCOURSE ACTIVITIES ACREAGE

PROJECT WORK AREA AND RESOURCE	EXISTING (PRE-PROJECT IMPROVEMENTS) (acres)	ELIMINATED (acres)	NEWLY CREATED (acres)	PROPOSED (POST-PROJECT IMPROVEMENTS) (acres)	ENHANCED (acres)
MAPLE STREET & RELIHAN ROAD CHANNEL IMPROVEMENTS					
WETLAND	0.03	0.02	0.00	0.01	0.00
WATERCOURSE	0.06	0.05	0.02	0.03	0.00
BAKER PARK FLOOD CONTROL IMPROVEMENTS					
WETLAND	2.39	0.16	0.04	2.27	0.00
WATERCOURSE	0.22	0.02	0.02	0.21	0.00
STORMWATER WETLAND	0.00	0.00	1.62	1.62	0.00
DARIEN HIGH SCHOOL WETLAND CREATION & ENHANCEMENTS					
WETLAND	1.17	0.00	0.42	1.59	0.10
WATERCOURSE	0.05	0.05	0.00	0.00	0.00
STONY BROOK STREAM CHANNEL AND BANK ENHANCEMENTS					
WETLAND	0.00	0.00	0.02	0.02	0.00
WATERCOURSE	0.10	0.00	0.00	0.10	0.10
STREAM BANK	0.00	0.00	0.00	0.00	0.09
TOTAL PROJECT AREA					
WETLAND	3.59	0.17	0.48	3.89	0.10
WATERCOURSE	0.42	0.12	0.04	0.34	0.10
STORMWATER WETLAND	0.00	0.00	1.62	1.62	0.00
STREAM BANK ENHANCEMENTS	0.00	0.00	0.00	0.00	0.09

DRAWING PREPARED BY:

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LAND USE PLANNING
LANDSCAPE ARCHITECTURE

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DRAWING NAME:
TOTAL PROJECT AREA: WETLAND & WATERCOURSE ACTIVITES PLAN NOTES & LEGEND

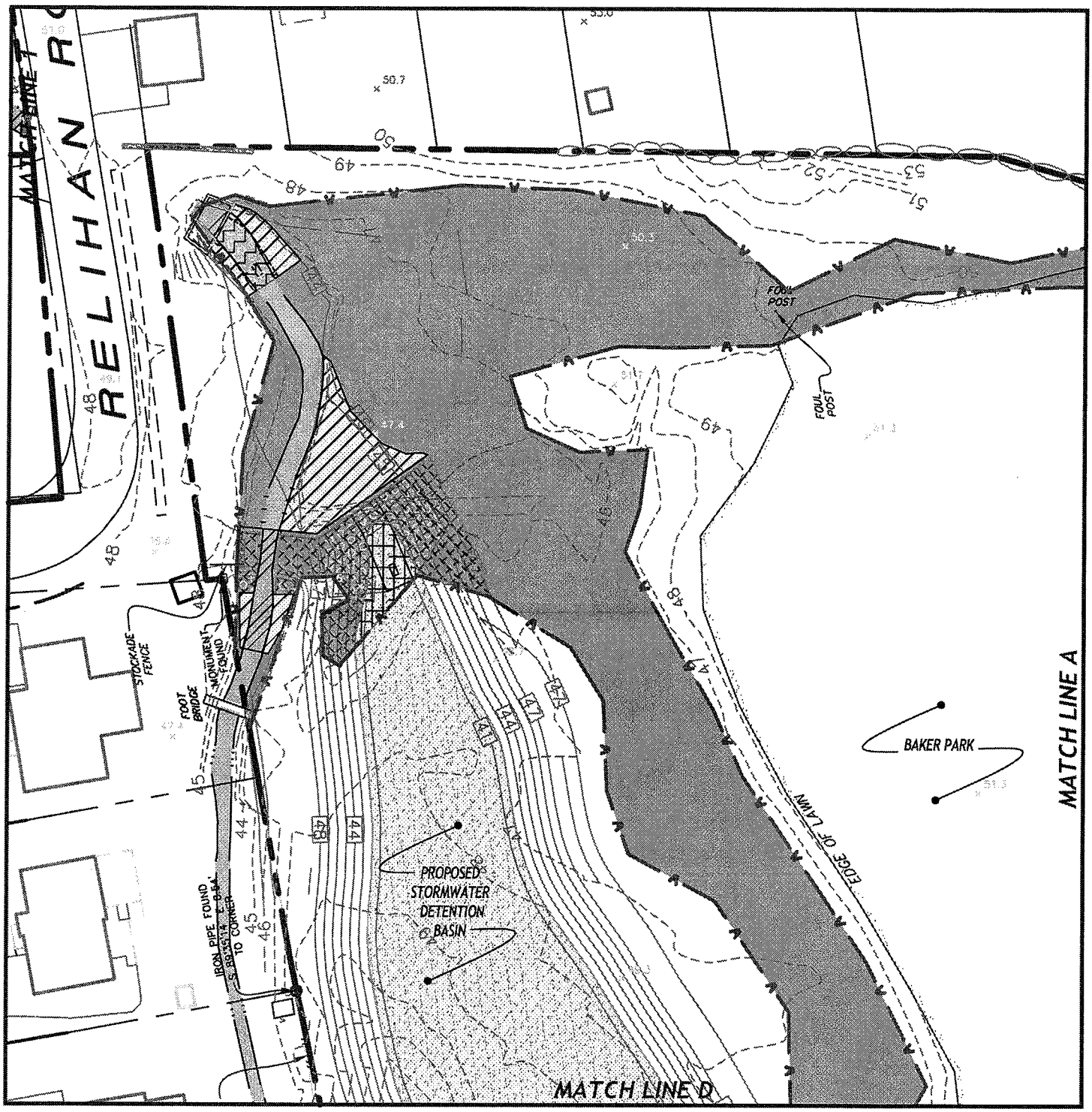
DRAWING NUMBER:
33 OF 42

PROJECT NAME:
STONY BROOK TRIBUTARY FLOOD CONTROL PROJECT

APPLICANT:
TOWN OF DARIEN CONNECTICUT

ADDRESS:
STONY BROOK TRIBUTARY DARIEN, CONNECTICUT

DATE: **FEBRUARY 10, 2009**



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DRAWING NUMBER:
34 OF 42

NORTH

SCALE:

0' 25' 50' 100'

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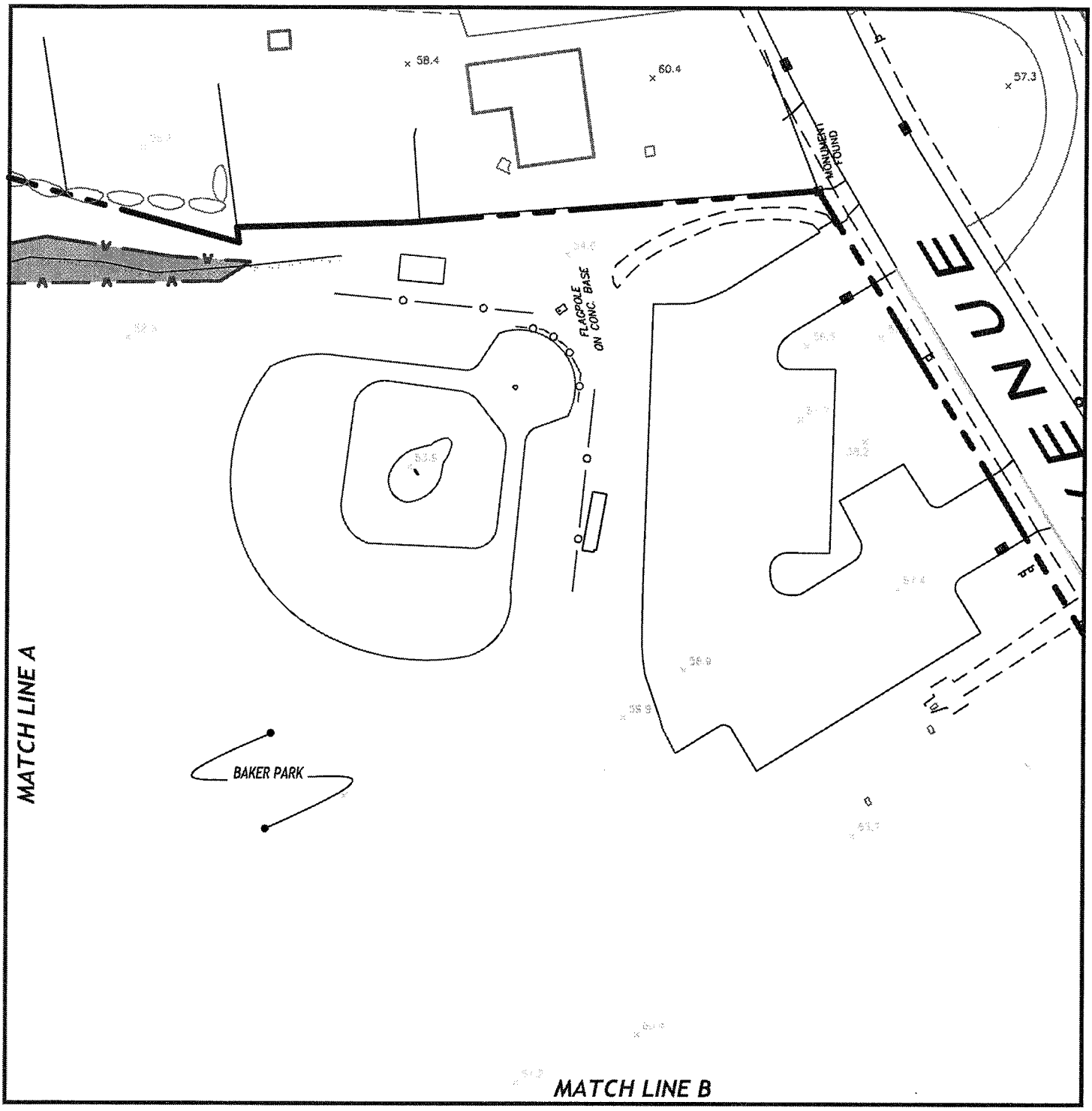

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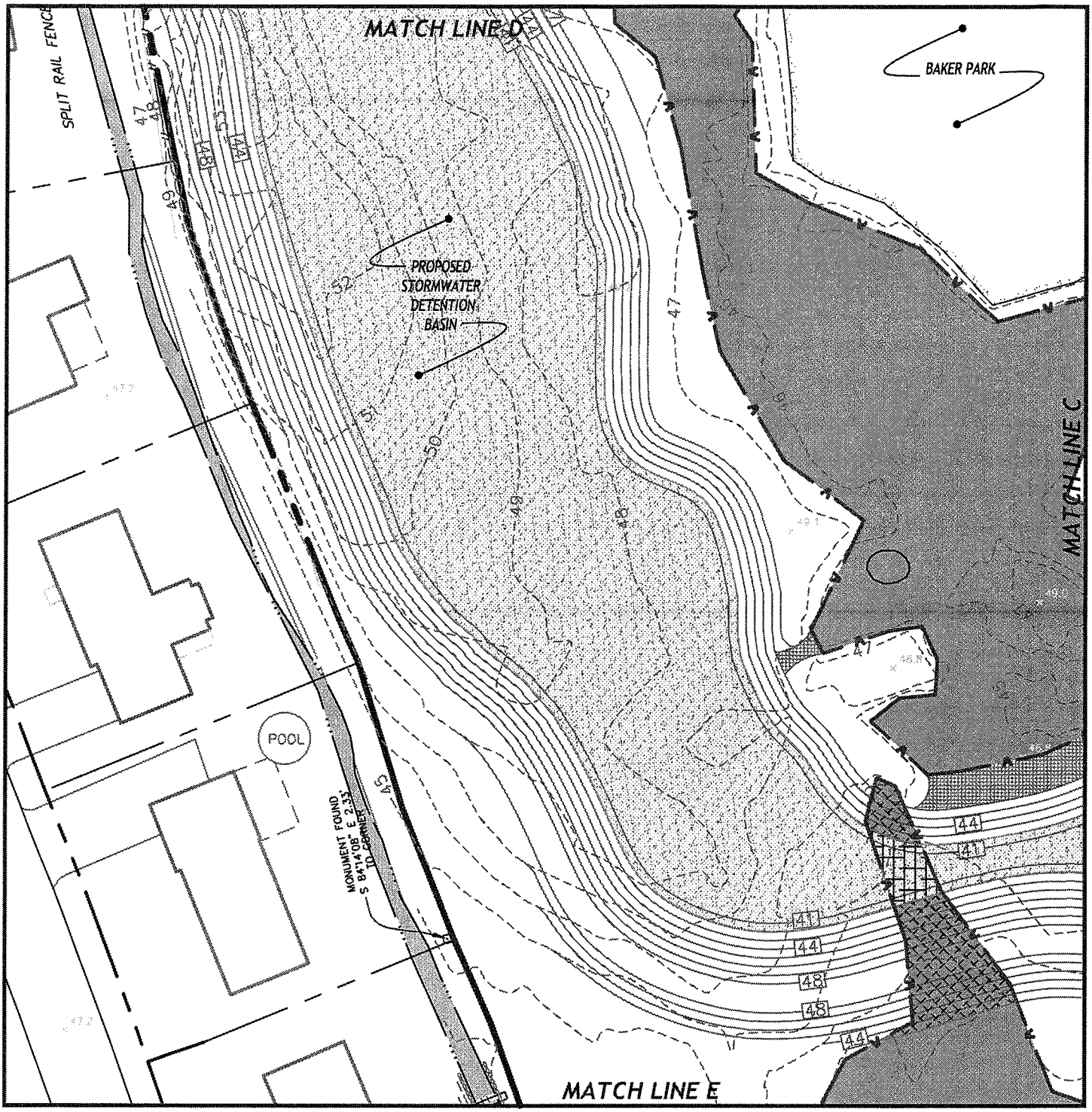

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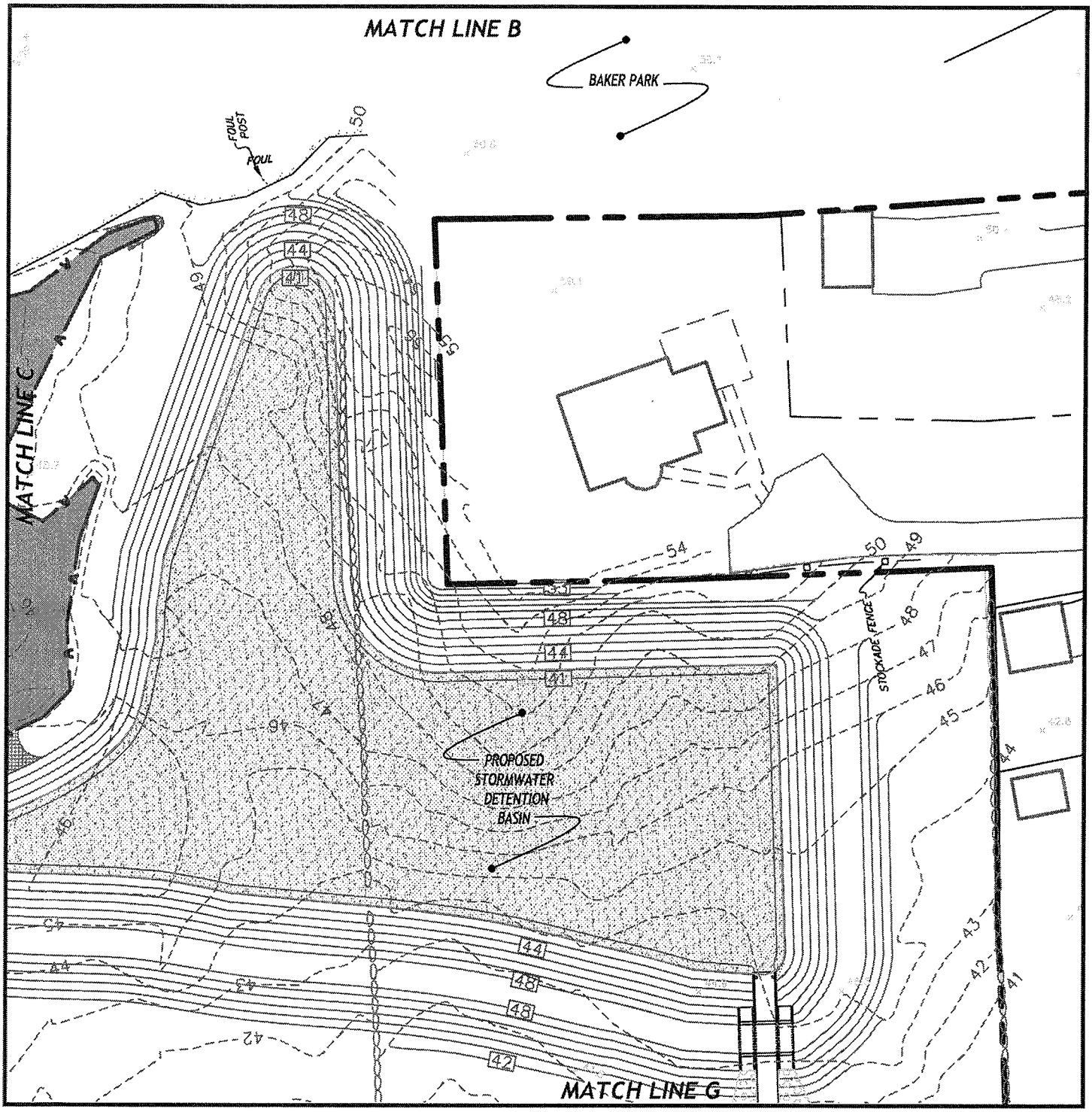

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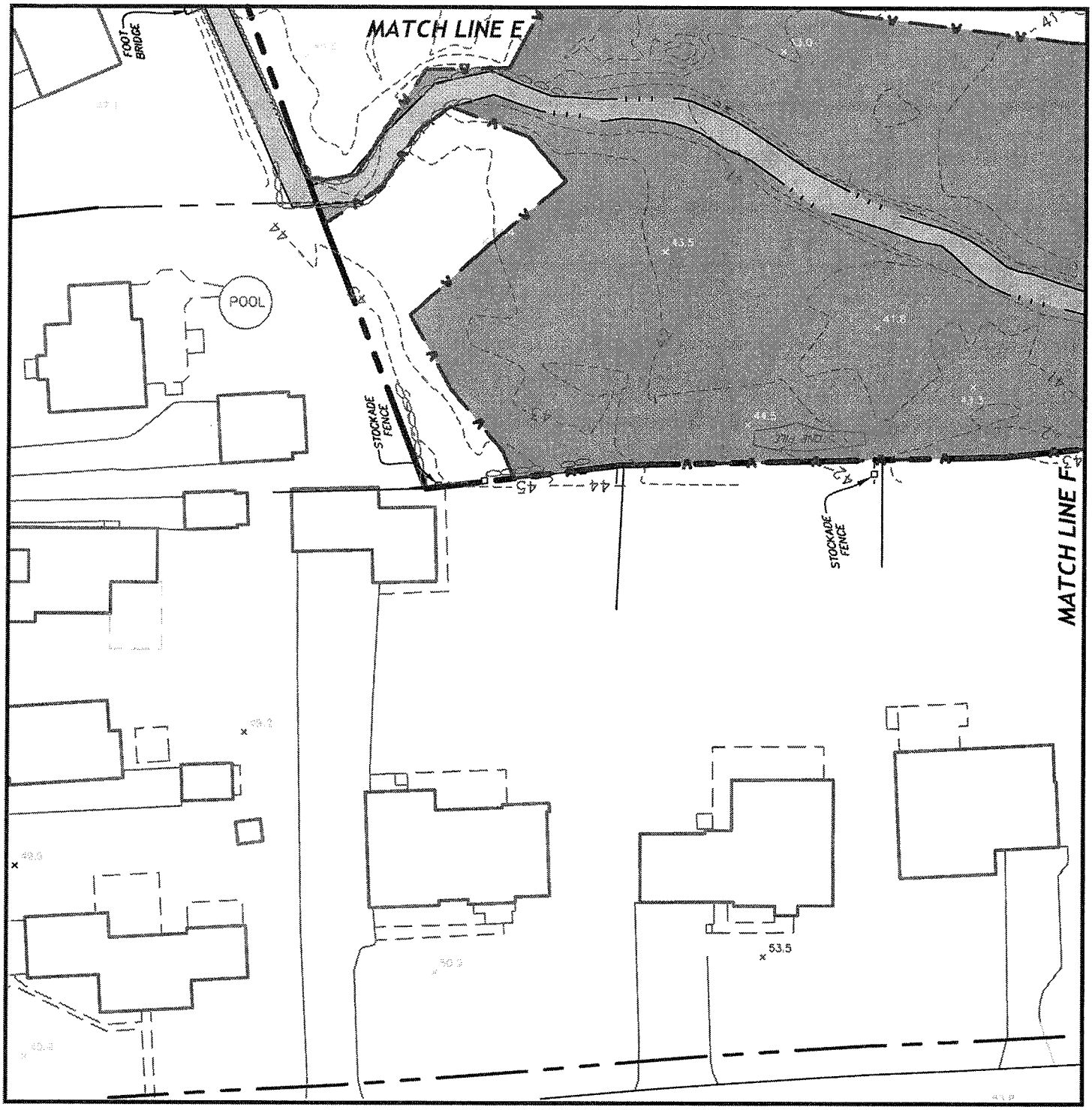

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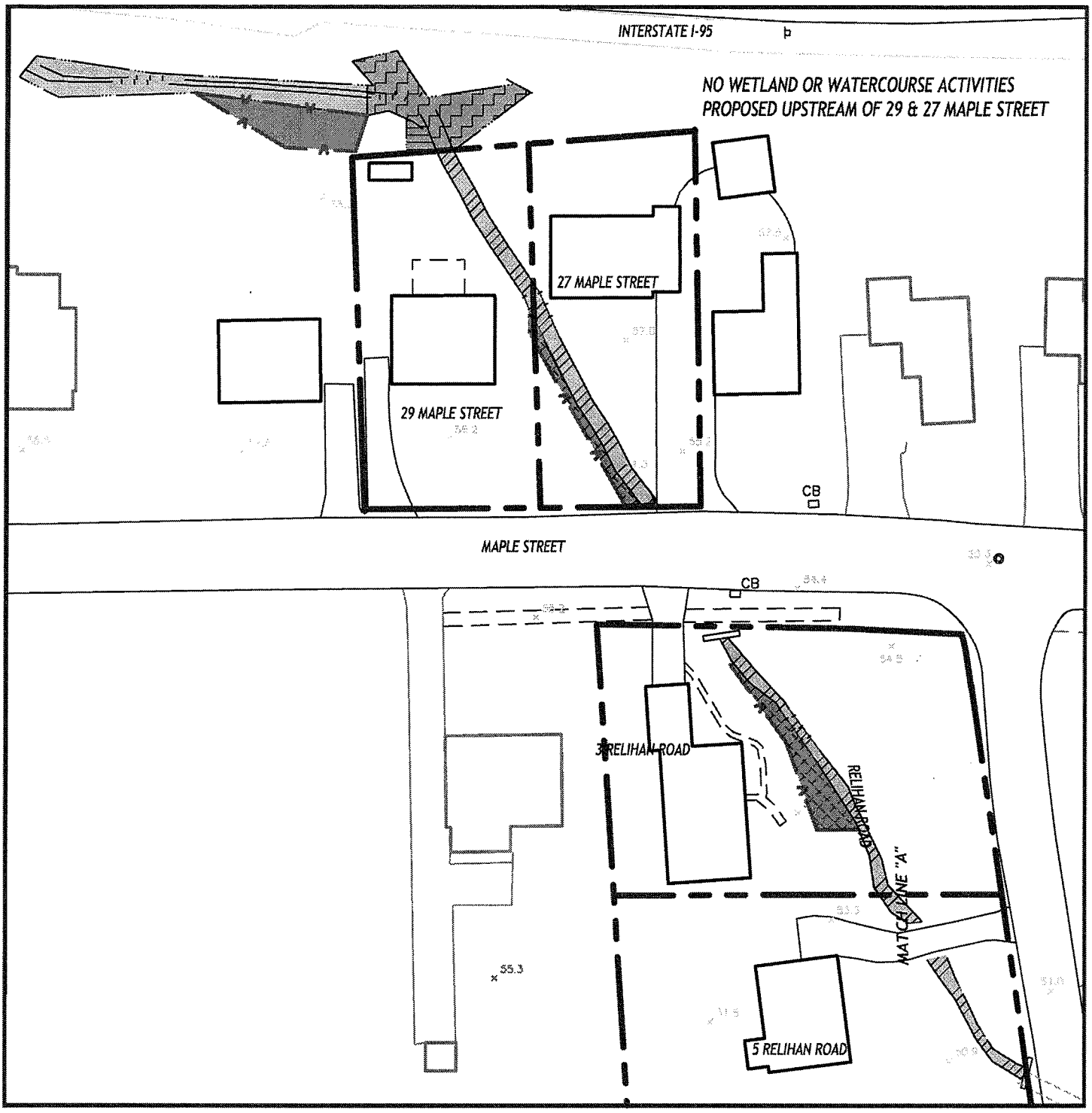

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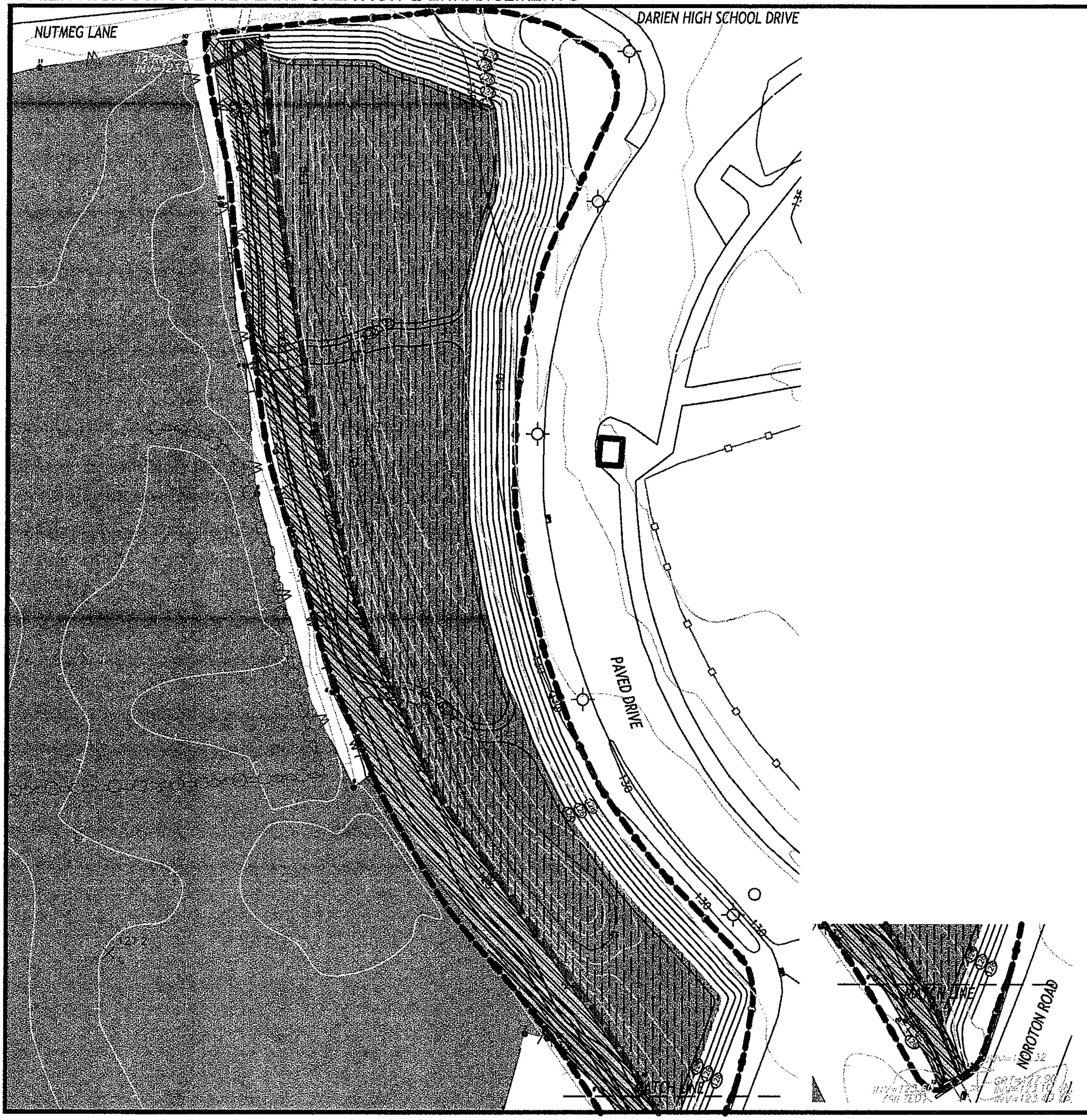
DARIEN HIGH SCHOOL WETLAND CREATION & ENHANCEMENTS



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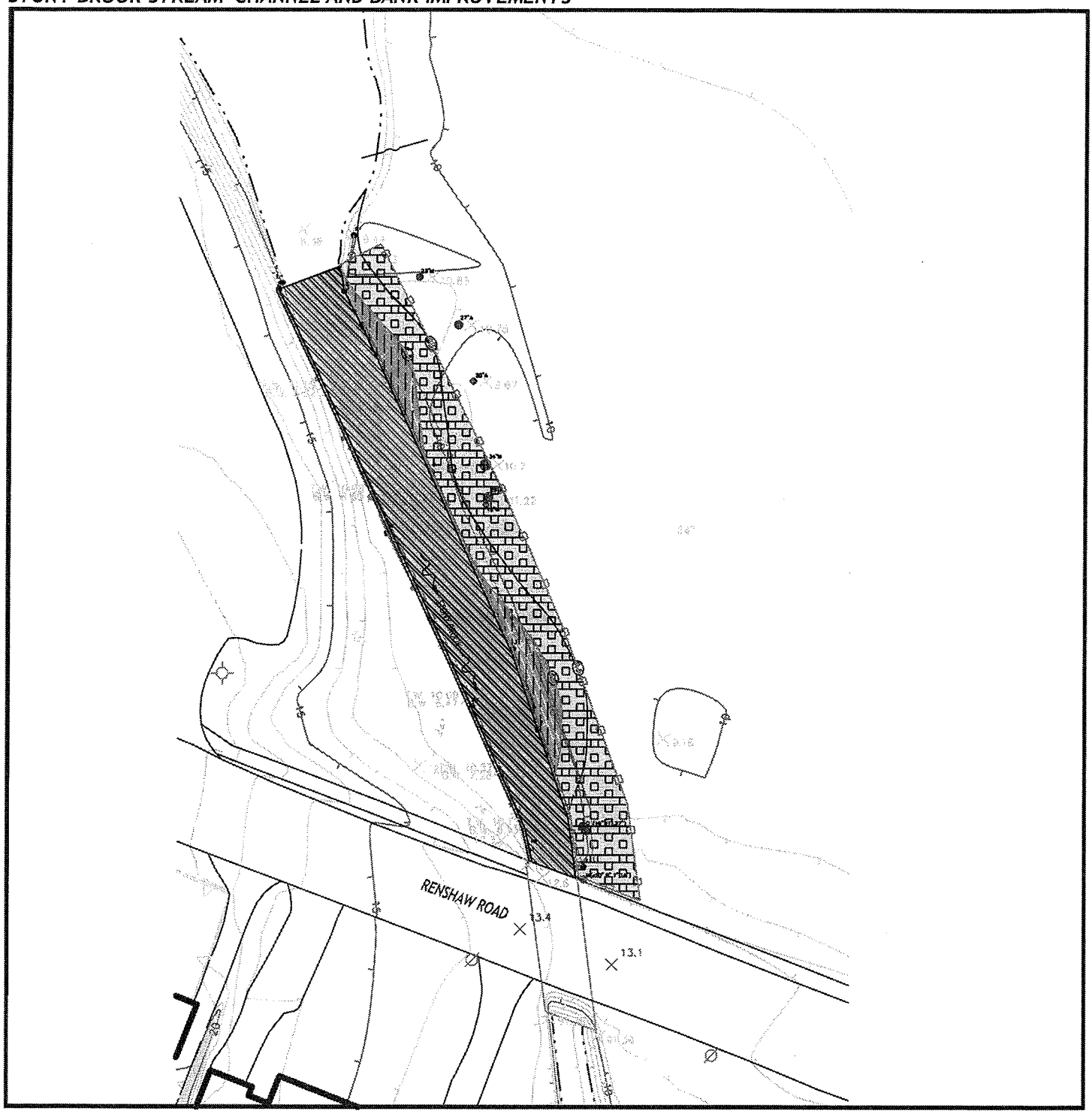
STONY BROOK STREAM CHANNEL AND BANK IMPROVEMENTS



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